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November
2018

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Can be Ordered via
Part #: 199903

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weldcote
metals



ER70S-6

(Spec/Classification: Alloy ER70S-6, AWS 5.18, ASME SFA 5.18)

Description:

- ER70S-6 is a copper coated carbon steel solid wire or rod that contains higher levels of manganese and silicon than the other standard grades of carbon steel wires.
- This wire features excellent tolerance of rust and scale.
- ER70S-6 is used for butt and fillet welding of sheet and plate of a variety of thickness.

Applications:

- Applications include general carbon steel fabrication.
- It also performs well on rusty and oily areas on carbon steels.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V
ASW Spec.	0.06 - 0.15	1.40-1.85	0.08-1.15	0.025	0.035	0.05	0.15	0.15	0.15	0.03
Result (%)	0.066	1.45	0.96	0.014	0.01	0.012	0.14	0.055	<0.001	<0.007

AWS' Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating.

Typical Mechanical Properties of Weld Metal:

Shielding Gas	CO ²	75%Ar / 25%CO ²	98%Ar / 2%CO ²	AWS Requirements ⁽²⁾
Tensile Strength (psi)	80-85,000	85-90,000	85-90,000	70,000
Yield Strength (psi)	65-70,000	70-75,000	70-75,000	58,000
Elongation in 2" (%)	28.50%	28%	28%	22%
Reduction of Area	55-77%	55-70%	55-70%	Not Required
Charpy V-notch ft. lbs.	20-30	25-35	30-40	20

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required -20°F.

Recommended Welding Parameters: ER70S-6

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	75%Ar / 25%CO ²	Wire Feed (ipm)
.023	45-90	13-17	25	160-362
.030	65-145	14-17	25	160-365
.035	85-170	15-20	25-30	165-320
.045	120-225	17-20	30-35	115-210
1/16	275-400	24-32	30-40	200-330

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

ER70S-6

(Spec/Classification: Alloy ER70S-6, AWS 5.18, ASME SFA 5.18)

ER70S-6 33# Spools (Skid Size is 1,980 Pounds)		UPC #	Part #	U/M	Size
ER70S-6 .023 × 33# Spool	One Spool	877511001693	E70S6023X33SP	LB	.023
ER70S-6 .030 × 33# Spool		877511004991	E70S6030X33SPLW	LB	.030
ER70S-6 .035 × 33# Spool		877511004953	E70S6035X33SPLW	LB	.035
ER70S-6 .045 × 33# Spool		877511004977	E70S6045X33SPLW	LB	.045

ER70S-6 44# Spools (Skid Size is 2,640 Pounds)		UPC #	Part #	U/M	Size
ER70S-6 .030 × 44# Spool	One Spool	812922011664	E70S6030X44SPLW	LB	.030
ER70S-6 .035 × 44# Spool		877511004960	E70S6035X44SPLW	LB	.035
ER70S-6 .045 × 44# Spool		877511004984	E70S6045X44SPLW	LB	.045
ER70S-6 .052 × 44# Spool		877511004946	E70S6052X44SP	LB	.052

ER70S-6 11# Spools (Skid Size is 2,200 Pounds)		UPC #	Part #	U/M	Size
ER70S-6 .023 × 11# Spool	One Spool	877511007015	E70S6023X11SPLW	LB	.023
ER70S-6 .030 × 11# Spool		877511007022	E70S6030X11SPLW	LB	.030
ER70S-6 .035 × 11# Spool		877511007039	E70S6035X11SPLW	LB	.035
ER70S-6 .045 × 11# Spool		877511001686	E70S6045X11SP	LB	.045

ER70S-6 2# Spools		UPC #	Part #	U/M	Size
ER70S-6 .023 × 2# Spool	2-20 lb. Spools per Carton	877511001754	E70S6023X2SP	LB	.023
ER70S-6 .030 × 2# Spool		877511001761	E70S6030X2SP	LB	.030
ER70S-6 .035 × 2# Spool		877511001778	E70S6035X2SP	LB	.035
ER70S-6 .045 × 2# Spool		877511001785	E70S6045X2SP	LB	.045

ER70S-6 60# Coils (2,160 lbs/skid)		UPC #	Part #	U/M	Size
ER70S-6 .045 × 60# Coils	One Coil	812922011275	E70S6045X60SPLW	LB	.045

ER70S-6 550# Drums (Skid Size is 2,200 Pounds)		UPC #	Part #	U/M	Size
ER70S-6 .035 × 550# Drum px	550 lb. Drum	877511001631	E70S6035X550D	LB	.035
ER70S-6 .045 × 550# Drum px		877511001648	E70S6045X550D	LB	.045

ER70S-6 36" Cut Lengths (TIG)		UPC #	Part #	U/M	Size
ER70S-6 .035 × 36	4-10 lb. Tubes in 40 lb. Carton	877511001990	E70S6035X36T	LB	.035
ER70S-6 .045 × 36		877511002003	E70S6045X36T	LB	.045
ER70S-6 1/16 × 36		877511001952	E70S6116X36T	LB	1/16
ER70S-6 3/32 × 36		877511001969	E70S6332X36T	LB	3/32
ER70S-6 1/8 × 36		877511001976	E70S618X36T	LB	1/8
ER70S-6 5/32 × 36		877511001983	E70S6532X36T	LB	5/32



#2 Spools

#33 Spools

ER70S-3

(Spec/Classification: Alloy ER70S-3, AWS 5.18, ASME SFA 5.18)

Description:

- ER70S-3 is intended for welding single-pass and multi-pass welds. This chemistry provides sufficient deoxidation to allow welding over light mill scale with both 100% CO² as well as mixed shielding gases.
- Copper coating protects the surface of the wire and the weld bead provides a slag free surface for easy post cleaning.

Applications:

Typical base metal specifications are often the same as those for ER70S-2.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V
ASW Spec.	0.06 - 0.15	0.09-1.40	0.45-0.75	0.025	0.035	0.50	0.15	0.15	0.15	0.03
Result (%)	0.066	1.15	0.66	0.015	0.012	0.15	0.01	0.02	<0.001	<0.001

AWS' Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating.

Typical Mechanical Properties of Weld Metal:

Shielding Gas	CO ²	75%Ar / 25%CO ²	98%Ar / 2%CO ²	AWS Requirements ⁽²⁾
Tensile Strength (psi)	75-79,000	78-82,000	81-85,000	70,000
Yield Strength (psi)	60-62,000	64-66,000	65-67,000	58,000
Elongation in 2" (%)	28.1%	25.4%	22.4%	22%
Reduction of Area	55-77%	55-70%	55-70%	Not Required
Charpy V-notch ft. lbs.	79-81	64-65	59-62	20

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required -20°F.

Recommended Welding Parameters: ER70S-3

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	75%Ar / 25%CO ²	Wire Feed (ipm)
.023	45-100	13-17	25	160-362
.030	65-155	14-17	25	160-365
.035	85-180	15-20	25-30	165-320
.045	120-235	17-20	30-35	115-210
1/16	275-400	24-32	30-40	200-330

Add 1-2 volts with 100% CO²

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

ER70S-3 33# Spools (1,980 lbs/skid)		UPC #	Part #	U/M	Size
ER70S-3 .035 x 33# Spool	One Spool	877511001617	E70S3035X33SP	LB	.035

ER70S-3 36" Cut Lengths		UPC #	Part #	U/M	Size
ER70S-3 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511001600	E70S3116X36T	LB	1/16
ER70S-3 3/32 x 36		877511001617	E70S3332X36T	LB	3/32
ER70S-3 1/8 x 36		877511001624	E70S318X36T	LB	1/8

Description:

- ER70S-2 is a deoxidized wire which is recommended for TIG welding on all grades of steel producing x-ray quality welds.
- ER70S-2 is used primarily for single-pass welding of killed, semi-killed and rimmed steels, but may also be used for some multi-pass applications and ideal for pipe welding. ER70S-2 can be used for welding steels that have a rusty or dirty surface.

Applications:

Typical specifications for these steels are ASTM A36, A285-C, A515-55 and A516-70.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V	Ti	Zr	Al
ASW Spec.	0.07	0.90-1.40	0.40-0.70	0.025	0.035	0.50	0.15	0.15	0.15	0.03	0.05-0.15	0.02-0.12	0.05-0.15
Result (%)	0.05	1.25	0.5	0.012	0.012	<0.5	<0.15	<0.15	<0.15	<0.03	0.1	0.09	0.1

AWS' Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating.

Typical Mechanical Properties of Weld Metal:

Shielding Gas	Ar
Tensile Strength (psi)	80-85,000
Yield Strength (psi)	65-70,000
Elongation in 2" (%)	22%
Reduction of Area	25-30%
Charpy V-notch ft. lbs.	79-81

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required -20°F.

ER70S-2 36" Cut Lengths		UPC #	Part #	U/M	Size
ER70S-2 .035 × 36	4-10 lb. Tubes in 40 lb. Carton	877511001907	E70S2035X36T	LB	.035
ER70S-2 .045 × 36		877511001914	E70S2045X36T	LB	.045
ER70S-2 1/16 × 36		877511001860	E70S2116X36T	LB	1/16
ER70S-2 3/32 × 36		877511001877	E70S2332X36T	LB	3/32
ER70S-2 1/8 × 36		877511001884	E70S218X36T	LB	1/8
ER70S-2 5/32 × 36		877511001891	E70S2532X36T	LB	5/32



R45

(Spec/Classification: AWS A5.2 Class R45)

Description:

- Weldcote Metals R45 is a copper coated gas welding rod that is used for welding ordinary low carbon steel up to 1/4" thick.
- It is recommended where ductility and machinability are most important.

Applications:

- R45 produces high quality welds which are ductile and free of porosity.
- This rod is excellent for steel sheets, plates, pipes, castings and structural shapes.
- No flux is required.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	Al
Result (%)	0.08	0.5	0.1	0.035	0.04	0.3	0.3	0.2	0.2	0.02

Typical Mechanical Properties of Weld Metal:

	Typical
Tensile Strength (psi)	52,000
Elongation % in 2"	22%

Gas Welding Rod For Torch R45		UPC #	Part #		
R45 1/16 x 36	4-10 lb. Tubes 40 lb. Carton	877511002010	R45116X36T	LB	1/16
R45 3/32 x 36		877511002027	R45332X36T	LB	3/32
R45 1/8 x 36		877511002034	R4518X36T	LB	1/8
R45 5/32 x 36		877511002041	R45532X36T	LB	5/32
R45 3/16 x 36		877511008968	R45316X36T	LB	3/16

1 Lb. POP tubes are available

R60

(Spec/Classification: AWS A5.2 Class R45)

Description:

- Weldcote Metals R60 is a non-copper coated gas welding rod that is used to produce high tensile strength quality welds on low carbon and low alloy steels such as sheets, plates, pipes, of grade A and B analysis and structural shapes.
- It is recommended for critical welds that must respond to the same annealing and heat treatment as regular grades of cast steel.

Applications:

The high silicon and manganese composition removes impurities from the molten metal thereby eliminating the need for flux.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	Al
Result (%)	0.15	0.90-1.40	0.1-0.35	0.035	0.035	0.3	0.3	0.2	0.2	0.02

Typical Mechanical Properties of Weld Metal:

	Typical
Tensile Strength (psi)	62,000-67,000
Elongation % in 2"	20%-25%



Gas Welding Rod For Torch R60		UPC #	Part #		
R60 1/16 x 36	4-10 lb. Tubes 40 lb. Carton	877511002072	R60116X36T	LB	1/16
R60 3/32 x 36		877511002089	R60332X36T	LB	3/32
R60 1/8 x 36		877511002096	R6018X36T	LB	1/8
R60 5/32 x 36		877511002102	R60532X36T	LB	5/32
R60 3/16 x 36		877511008975	R60316X36T	LB	3/16

1 Lb. POP tubes are available

ER100S-1 LOW ALLOY STEEL

(Spec/Classification: Alloy ER100S-1, AWS A5.28, ASME SFA 5.28)

Description:

- Weldcote ER100S-1 deposits are high strength where tough weld metal may be needed on a variety of steels in critical applications.
- ER100S-1 is developed for high yield steels such as: HY-80, HY-100, HSLA-80, ASTM A514, A543, A724 and A782 quenched and tempered steels often exceeding 100,000 psi tensile strengths.

Applications:

- Application included mining, pressure vessels, shipbuilding, military equipment and general high strength fabrication. Weld metal yields a high ductility with a great strength and impact resistance while offering high notch toughness to -60°F. ER100S-1 preheat and interpass temperature of 275-350°F may be required.
- Weld deposit mechanical properties will vary depending on heat input used.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V	Ti	Zr
ASW Spec.	0.08	1.25-1.80	0.20-0.55	0.01	0.01	0.25	1.40-2.10	0.3	0.25-0.55	0.05	0.1	0.1
Result (%)	0.07	1.48	0.31	0.008	0.005	0.2	1.52	0.11	0.38	0.014	0.01	0.005

AWS¹ Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating. Al = 0.10% max

Typical Mechanical Properties of Weld Metal:

	Typical Result	AWS Requirements ⁽²⁾
Tensile Strength (psi)	108,750	100,000
Yield Strength (psi)	89,450	88,000
Elongation in 2" (%)	18%	16%
Charpy V-notch ft. lbs.	69	50

AWS Requirements² single value minimum.

Charpy V-notch ft. lbs for Impact Test done at required -60°F

Recommended Welding Parameters: ER100S-1

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	75%Ar / 25%CO ²	Wire Feed (ipm)
.030	45-135	14-20	25	160-362
.035	85-180	15-21	25-30	160-365
.045	110-225	17-20	30-35	165-320
.035	180-245	24-27	(Spray) 35-30	(98%Ar/2%CO ²) 365-545
.045	200-365	24-29	(Spray) 30-35	(98%Ar/2%CO ²) 270-515
1/16"	275-425	25-35	(Spray) 30-40	(98%Ar/2%CO ²) 195-295

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

100S-1 | 33# Spools

		UPC #	Part #	U/M	Size
100S-1 .035 × 33 pound Spool	1 Spool	812922014597	100S1035X33SP	LB	.035
100S-1 .045 × 33 pound Spool		812922014603	100S1045X33SP	LB	.045

ER110S-1 & ER120S-1 LOW ALLOY STEEL

(Spec/Classification: Alloy ER110S-1 / Alloy ER120S-1 , AWS A5.28, ASME SFA 5.28)

Description:

- Weldcote ER110S-1 deposits are high strength where tough weld metal may be needed on a variety of steels in critical applications.
- ER110S-1 is developed for high yield steels such as: HY-80, HY-100, HSLA-80, T1, N-A-XRTA 70, WELDOX 700 and other quenched and tempered steels often exceeding 110,000 psi tensile strengths.

Applications:

- Application included mining, pressure vessels, shipbuilding, military equipment and general high strength fabrication.
- Weld metal yields a high ductility with a great strength and impact resistance while offering high notch toughness to -60°F.
- ER110S-1 preheat and interpass temperature of 275-350°F may be required.
- Weld deposit mechanical properties will vary depending on heat input used.

Description:

- Weldcote ER120S-1 deposits are high strength where tough weld metal may be needed on a variety of steels in critical applications.
- ER120S-1 is developed for high yield steels such as: T-1, HY-100 and other quenched and tempered steels often exceeding 120,000 psi tensile strengths.

Applications:

- Application includes pressure vessels, shipbuilding, military equipment and general high strength fabrication.
- Weld metal yields a high ductility with a great strength and impact resistance while offering high notch toughness to -60°F.
- ER120S-1 preheat and interpass temperature of 275-350°F may be required.
- Weld deposit mechanical properties will vary depending on heat input used.

ER110S-1 Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	S	P	Ti	Cr	Ni	Mo	V	Zr	Cu
ASW Spec.	0.09	1.40-1.80	0.20-0.55	0.01	0.01	0.1	0.5	1.90-2.60	0.25-0.55	0.04	0.1	0.25
Result (%)	0.05	1.70	0.51	0.009	0.005	0.01	0.31	2.05	0.38	0.028	0.006	0.2

AWS' Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating. Al = 0.10% max

ER120S-1 Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	S	P	Ti	Cr	Ni	Mo	V	Zr	Cu
ASW Spec.	0.10	1.40-1.80	0.25-0.60	0.01	0.01	0.1	0.6	2.00-2.80	0.30-0.65	0.03	0.1	0.25
Result (%)	0.07	1.65	0.50	0.008	0.007	0.018	0.38	2.13	0.37	0.025	0.006	0.2

AWS' Chemical Composition Requirements Range with single value maximum. Cu includes any copper coating. Al = 0.10% max

Typical Mechanical Properties of Weld Metal:

	ER110S-1		ER120S-1	
	Typical Result	AWS Requirements ⁽²⁾	Typical Result	AWS Requirements ⁽²⁾
Tensile Strength (psi)	116,290	110,000	126,150	120,000
Yield Strength (psi)	101,210	89,500	108,460	105,000
Elongation in 2" (%)	16%	15%	16%	14%
Charpy V-notch ft. lbs.	61	50	59	50

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required -60°F

110S-1 33# Spools		UPC #	Part #	U/M	Size
110S-1 .035 x 33 pound Spool	1 Spool	812922014610	110S1035X33SP	LB	.035
110S-1 .045 x 33 pound Spool		812922014627	110S1045X33SP	LB	.045
120S-1 33# Spools		UPC #	Part #	U/M	Size
120S-1 .035 x 33 pound Spool	1 Spool	812922014634	120S1035X33SP	LB	.035

E71T-1 FLUX-CORED CARBON STEEL WIRE

(Spec/Classification: AWS A5.20 & ASME SFA 5.20 / E71T-1M & E71T-1C)

Description:

- Weldcote Metals E71T-1 features lower spatter and fume emissions than conventional products in this class.
- E71T-1 is intended for single and multiple pass welding of carbon and certain low alloy steels in all positions, particularly in the overhead and vertical up positions.
- Weldcote Metals E71T-1 is used where a minimum tensile strength of 70,000 psi is required in the deposited weld metal.

Applications:

- Weldcote Metals E71T-1 electrodes are classified with CO² shielding gas by this specification however, gas mixtures of argon-CO² are also used to improve usability, especially for out of position applications.
- Decreasing amounts of CO² in the argon-CO² mixture will increase manganese and silicon in the deposit and may improve the impact properties. The larger diameters (5/64" and larger) are used for welding in the flat position and for horizontal fillets. The smaller diameters (usually 1/16" and smaller) are used for welding in all positions.
- E71T-1 is characterized by a spray transfer, low spatter loss, flat to slightly convex bead configuration with a moderate volume of slag which completely covers the weld bead. E71T-1 electrodes have a rutile base slag.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	Ni	Cr	Mo	V
ASW Spec.	0.12	1.75	0.9	0.03	0.03	0.35	0.5	0.2	0.3	0.08
Result 100% CO²	0.66	1.15	0.66	0.015	0.012	0.15	0.01	0.02	<0.001	<0.001
Result 75Ar/25CO²	0.037	1.3	0.76	0.011	0.009	0.02	0.02	0.03	0.02	0.02

AWS' Chemical Composition Requirements Range with single value maximum.

Typical Mechanical Properties of Weld Metal:

Shielding Gas	100%CO ²	75%Ar / 25%CO ²	AWS Requirements ⁽²⁾
Tensile Strength (psi)	84-87,000	89-93,000	79-95,000
Yield Strength (psi)	75-77,000	81-83,000	58,000
Elongation in 2" (%)	31.10%	31%	22%
Charpy V-notch ft. lbs.	79-81	64-65	20

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required 0°F

Recommended Welding Parameters: E71T-1

FCAW Parameters (DC Reverse Polarity) Electrode Positive Optimum in Bold

Wire Diameter	Amps	Volts	75%Ar/25%CO ²	Electrical Stickout	Wire Feed (ipm)
.035	125-200-250	23-26-28	35-40	3/8-3/4"	300-640-780
.045	170-250-300	23-27-28	35-40	1/2-3/4"	265-500-600
.052	165-295-350	24-28-30	38-50	3/4-1"	200-380-580
.062	215-340-375	25-29-30	40-50	7/8-1"	(98%Ar/2%CO ²) 270-515

Add 1-2 volts with 100% CO² gas

Typical Diffusible Hydrogen

AWS H8 Requirements (maximum) = 8.0 ml/100g Results = 100% CO² = 6.8 ml/100g, 75%Argon/25%CO²

Other Test Data:

AWS Requirements of D1.8/D1.8M:2009 = Conforms, Annex D after exposure for 3 days @ 80% humidity = Conforms.
 AWS Requirements A5.20: Radiographic Test = Conforms, Fillet Weld Test = Conforms, Bend Test @ Face = No Defects.

E71T-1 33# Spools (Skid Size is 2,376 Pounds)	UPC #	Part #	U/M	Size
E71T1 .035 x 33# Spool NEW	812922014481	E71T1035X33SP	LB	.035
E71T1 .045 x 33# Spool	877511004540	E71T1045X33SP	LB	.045
E71T1 .052 x 33# Spool	877511005639	E71T1052X33SP	LB	.052
E71T1 1/16 x 33# Spool	877511004533	E71T1116X33SP	LB	1/16

E70C-6M METAL-CORED CARBON STEEL WIRE

(Spec/Classification: AWS A5.18 & ASME SFA 5.18 / E70C-6M)

Description:

- Weldcote Metals E70C-6M is a metal cored wire designed for single or multi pass welding on mild steels.
- Weldcote Metals E70C-6M has very low smoke, smooth, stable spatter free arc transfer yielding excellent bead contour with a high deposition rate and virtually free of slag on the weld bead.

Applications:

- Weldcote Metals E70C-6M is excellent to weld flat and horizontal which has deoxidizers that helps where mill scale may be present.
- This metal cored wire may be used to improve productivity on many fabrications and is also found often in robotic applications.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Cu	*Ni	*Cr	*Mo	*V
ASW Spec.	0.12	1.75	0.90	0.03	0.03	0.50	0.50	0.20	0.30	0.08
Result 75Ar/25CO²	0.04	1.48	0.69	0.018	0.09	0.05	0.02	0.03	<0.001	<0.001
Result 95Ar/5CO²	0.05	1.64	0.72	0.011	0.011					

AWS¹ Chemical Composition Requirements Range with single value maximum. *Sum of these four shall not exceed 0.50%.

Typical Mechanical Properties of Weld Metal:

Shielding Gas	75%Ar/25%CO ²	95%Ar/5%CO ²	AWS Requirements ²
Tensile Strength (psi)	81-86,000	85-89,000	70,000 psi
Yield Strength (psi)	69-77,000	70-78,500	58,000 psi
Elongation in 2" (%)	27-30.4%	25-27.8%	22%
Charpy V-notch ft. lbs.	49-67	51-56	20

AWS Requirements² single value minimum. Charpy V-notch ft. lbs for Impact Test done at required -20°F

Recommended Welding Parameters: E70C-6M

FCAW Parameters (DC Reverse Polarity) Electrode Positive Optimum in Bold

Wire Diameter	Amps	Volts	75%Ar/25%CO ²	Electrical Stickout	Wire Feed (ipm)
.035	175-200-250	25-29-35	35-40	2 1/2-5/8"	330-550-720
.045	190-250-375	27-30-36	35-40	1 1/2-3/4"	245-420-650
.052	215-295-450	25-30-36	38-50	3/4-1"	200-355-560
.062	235-360-525	28-30-36	40-50	7/8-1-1/4"	205-310-540

Reduce 1-2 volts with 95%Ar/5CO² gas

Typical Diffusible Hydrogen

AWS H8 Requirements (maximum) = 8.0 ml/100g

Other Test Data:

AWS Requirements A5.18: Radiographic Test = Conforms, Fillet Weld Test = Conforms, Bend Test @ Face = No Defects

E70C-6M 33/44# Spools		UPC #	Part #	U/M	Size
70C-6M .045 x 33# Spool	One Spool	812922014009	E70C6M045X33SP	LB	.045
70C-6M .045 x 44# Spool	One Spool	812922014771	E70C6M045X44SP	LB	.045

Description:

- Weldcote Metals E71T-GS is a flux cored, all position, self-shielded wire designed for welding applications where the use of an external shielding gas is not practical.
- Weldcote E71T-GS is designed to weld a full-strength bead in single pass applications, making it an ideal maintenance and repair wire for general field use, such as galvanized fence repair, farm equipment, tanks, non-destructive frames, automotive sheet metal, welding ductwork and joining of galvanized roofing sheet metal.

Applications:

- Usage should be limited to single pass welding. A second pass may be suitable in some applications, but multiple passes should be avoided.
- E71T-GS has a smooth stable arc, low spatter and easy slag removal. An excellent choice for lap and fillet welds on thin gauge material in all welding positions.
- Due to its low penetration into the base material, this alloy is a great wire for on the spot repairs to hold broken parts together until they can be re-welded with the appropriate material.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Si	Mn	P	S	Al	Fe
Result (%)	0.13	0.45	0.82	0.016	0.013	1.23	Balance

Typical Mechanical Properties of Weld Metal:

	AWS Spec
Tensile Strength (psi)	75,000
Yield Strength (psi)	60,000
Elongation in 2" (%)	22%
Charpy V-notch ft. lbs.	44



Recommended Welding Parameters: E71T-GS

FCAW Parameters (DCEN) Electrode Negative Amperage settings:

Wire Diameter	Flat	Horizontal fillet	Vertical
.030	40-160	40-160	30-120
.035	60-180	60-180	50-140
.045	80-200	80-200	80-160
1/16	160-270	160-270	120-220

* Electrical stick out 3/8" up to 1" on heavier diameters

Self-Shielding & Mild Steel Flux-Core Welding Wire

E71T-GS 2# Spools		UPC #	Part #	U/M	Size
E71TGS .030 x 2# Spool	2-20 lb. Spls per Carton	877511004847	E71TGS030X2SP	LB	.030
E71TGS .035 x 2# Spool		877511004861	E71TGS035X2SP	LB	.035
E71T-GS 10# Spools		UPC #	Part #	U/M	Size
E71TGS .030 x 10# Spool	4-10 lb. Spls per Master Carton	877511004854	E71TGS030X10SP	LB	.030
E71TGS .035 x 10# Spool		877511004878	E71TGS035X10SP	LB	.035
E71TGS .045 x 10# Spool NEW		877511006805	E71TGS045X10SP	LB	.045
E71T-GS 25# Spools		UPC #	Part #	U/M	Size
E71TGS .030 x 25# Spool	One Spool	877511005936	E71TGS030X25SP	LB	.030
E71TGS .035 x 25# Spool		877511005622	E71TGS035X25SP	LB	.035
E71TGS .045 x 25# Spool		877511005844	E71TGS045X25SP	LB	.045

E71T-11

(Spec/Classification: AWS A5.20 & ASME SFA 5.20)

Description:

Weldcote Metals E71T-11 is a self-shielding flux cored wire designed for single or multi-pass welding having a smooth spray-type transfer commonly used on mild steels less than 3/4" thick.

Applications:

- Weldcote E71T-11 is an easy general all position wire to use in the field where shielding gas is not practical.
- Limit to three passes will ensure properties on the mechanical and weld deposit chemistry.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Al	P	S	Fe
ASW' Spec.	0.3	1.75	0.6	1.8	0.03	0.03	Balance
Result (%)	0.2	0.6	0.3	1.42	0.01	0.013	Balance

AWS' Chemical Composition Requirements Range with single value maximum.

Typical Mechanical Properties of Weld Metal:

	AWS Spec	Typical
Tensile Strength (psi)	70-95,000	77,000
Yield Strength (psi)	58,000 (min)	70,000
Elongation in 2" (%)	20% (min)	22%



Recommended Welding Parameters: E71T-11

FCAW Parameters (DCEN) Electrode Negative Optimum in Bold

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout
.030	60-175-200	30-115-200	14-15-18	3/8-1/2
.035	40-210-240	50-150-220	13-17-19	3/8-1/2
.045	50-170-200	80-180-220	13-17-20	3/8-5/8
1/16	60-100-180	120-185-300	15-16-20	1/2-1"

Procedures may vary with changes in position, base metals, equipment and other variables

E71T-11 10# Spools		UPC #	Part #	U/M	Size
E71T-11 .030 x 10# Spool	One Spool	877511006704	E71T11030X10SP	LB	.030
E71T-11 .035 x 10# Spool		877511006711	E71T11035X10SP	LB	.035
E71T-11 .045 x 10# Spool		877511006728	E71T11045X10SP	LB	.045
E71T-11 25# Spools		UPC #	Part #	U/M	Size
E71T-11 .035 x 25# Spool	One Spool	812922012456	E71T11035X25SP	LB	.035
E71T-11 .045 x 25# Spool		812922011107	E71T11045X25SP	LB	0.45

ER4130 CHROME MOLYBDENUM STEEL (Spec/Classification: AISI/SAE 4130)

Description:

Weldcote Metals 4130 is a high strength, low alloy welding wire used for joining high strength steel of similar composition (4130 and 8630) and other heat-treatable alloys or base metals needing flame hardening.

Applications:

- 4130 is also used for overlay applications where moderate hardness is required.
- This wire may be used for the GMAW, GTAW, and SMAW welding processes.
- A preheat and interpass temperature of 400°F is required.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Cu	Mo	S	P	Al	Fe
Result (%)	0.300	0.520	0.280	0.950	0.100	0.200	0.200	0.010	0.010	0.005	Balance

Typical Mechanical Properties of Weld Metal:

Tempered at:	1150°F	950°F
Tensile Strength (psi)	190,000	200,000
Yield Strength (psi)	168,000	188,000
Elongation in 2" (%)	11%	11%

The mechanical properties stated above were obtained by heating the weld metal to 1600°F, oil quenching and tempering at above temperatures.

Recommended Welding Parameters: ER4130 Chrome-Moly

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	CO ² (cfh)	Wire Feed (ipm)
.023	30-85	14-19	20-25	80-350
.030	40-130	15-20	20-25	110-340
.035	60-235	16-25	20-30	100-520
.045	90-290	18-23	25-35	70-270
.035	160-300	23-26	(Spray) 25-35	(98%Ar/2%CO ²) 320-600
.045	170-375	23-29	(Spray) 25-35	(98%Ar/2%CO ²) 170-550
1/16"	275-475	25-31	(Spray) 25-35	(98%Ar/2%CO ²) 175-350

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

4130 Chrome Alloy 36" Lengths		UPC #	Part #	U/M	Size
4130 1/16 x 36	4-10 lb. Tubes 40 lb. Carton	877511006674	4130116X36T	LB	1/16
4130 3/32 x 36		877511006681	4130332X36T	LB	3/32
4130 1/8 x 36		877511006698	413018X36T	LB	1/8

ER80S-B2 & ER90S-B3

(Spec/Classification: AWS A5.28 ER80S-B2 / ER90S-B3, ASME SFA 5.28)

Description:

- Weldcote Metals ER80S-B2 is used to weld 1/2Cr-1/2Mo, 1Cr-1/2Mo, and 1-1/4Cr-1/2Mo steels for elevated temperatures and corrosive service.
- It is also used for joining dissimilar combinations of Cr-Mo and carbon steels.
- All transfer modes of the GMAW process may be used.

Applications:

- Careful control of preheat, interpass temperatures, and postheat is essential to avoid cracking.
- ER80S-B2 is classified after postweld heat treatment.
- Special care must be used with using it in the as-welded condition due to higher strength levels.
- ER80S-B2 contains 0.50% molybdenum for strength after stress values.
- Some typical applications are pressure vessel forgings, fittings, flanges and high temperature service pipes.

Description:

- Weldcote Metals ER90S-B3 is used to weld such alloys as 2 1/4Cr-1%Mo steels, which are found in high temperature and high-pressure piping and vessels.
- May also be used on carbon steels to Cr-Mo steels but should always have careful control of preheat, inter-pass and post-heat to avoid cracking.

Applications:

- Use with a pre-heat and inter-pass temperature of 375°F minimum.
- Some typical applications are high pressure piping, pressure vessels, and joining dissimilar combinations of Cr-Mo and carbon steels.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	P	S	Ni	Cr	Mo	Cu
Result (%)	0.07-0.12	0.40-0.70	0.40-0.70	0.025	0.025	0.200	1.20-1.50	0.40-0.65	0.350

AWS' Chemical Composition Requirements Range with single value maximum.

Typical Mechanical Properties of Weld Metal:

	ER80S-B2		ER90S-B3	
	Argon/1-5% O ²		Argon/1-5% O ²	
Elongation in 2" (%)	19%		17%	
Yield Strength (psi)	68,000 Psi	470 MPa	78,000 Psi	540 MPa
Tensile Strength (min)	80,000 Psi	550 MPa	90,000 Psi	620 MPa

AWS Requirements² single value minimum. Charpy V-notch ft. lbs. for Impact Test done at required -20°F.

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

ER80S-B2 Chrome Alloy 36" Lengths	UPC #	Part #	U/M	Size
ER80SB-2 1/16 x 36	4-10 lb. Tubes 40 lb. Carton	877511004823	80SB2116X36T	LB 1/16
ER80SB-2 3/32 x 36		877511001792	80SB2332X36T	LB 3/32
ER80SB-2 1/8 x 36		877511001808	80SB218X36T	LB 1/8

ER90S-B3 Chrome Alloy 36" Lengths	UPC #	Part #	U/M	Size
ER90SB-3 3/32 x 36	4-10 lb. Tubes 40 lb. Carton	877511001846	90SB3332X36T	LB 3/32
ER90SB-3 1/8 x 36		877511001853	90SB318X36T	LB 1/8
ER90SB-3 5/32 x 36		877511008302	90SB3532X36T	LB 5/32

Description:

- Weldcote Metals ER80S-D2 is copper coated for GMAW and TIG welding in boiler pressure vessel, pipework, crane construction as well as in structural steel engineering.
- High quality, very tough deposit of high crack resistance and non-aging.
- Recommended for service in temperature range -45°C (TIG) or -40°C (GMAW) to 550°C.
- Good copper bonding with low total copper content.

Applications:

- ER80S-D2 is commonly used on low carbon and low alloy steels such as AISI 4130 where the tensile strengths provided by plain carbon steel wires are inadequate.
- Very good welding and flow characteristics.
- Preheating interpass and postweld heat treatment as required by base metal.
- This wire has superior arc stability, low spatter and a flat bead with excellent appearance, producing X-ray quality, porosity free welds even over dirt, rust or mill scale.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	P	S	Si	Mo	Ni
ASW' Spec.	0.07-0.12	1.6-2.1	0.025 max	0.025 max	0.5-0.8	0.4-0.6	0.15 max
Result (%)	0.1	1.8	0.012	0.012	0.65	0.5	0.02

AWS' Chemical Composition Requirements Range with single value maximum.

Typical Mechanical Properties of Weld Metal:

	AWS Spec	Typical
Tensile Strength (psi)	80,000 (min)	99,000
Yield Strength (psi)	68,000 (min)	84,000
Elongation in 2" (%)	17% (min)	22%

Recommended Welding Parameters: ER80S-D2

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	CO ² /AR-CO ²	Wire Feed (ipm)
.035	50-180	16-22	20-25	150-340
.045	75-250	17-22	20-25	100-220

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-140	3/8	20
3/32"	1/16"	1/16"	100-160	3/8	20
1/8"	3/32"	1/16"	125-200	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	150-250	1/2	25
3/8"	1/8"	1/8"	150-275	1/2	25
1/2"	1/8"	1/8"	150-300	1/2	25

ER80S-D2 36" Lengths		UPC #	Part #	U/M	Size
ER80SD-2 .045 × 36	NEW	812922015075	80SD2045X36T	LB	.045
ER80SD-2 1/16 × 36	4-10 lb. Tubes 40 lb. Carton	877511001815	80SD2116X36T	LB	1/16
ER80SD-2 3/32 × 36		877511001822	80SD2332X36T	LB	3/32
ER80SD-2 1/8 × 36		877511001839	80SD218X36T	LB	1/8
ER80S-D2 33# Spools (Skid Size is 1,980 Pounds)		UPC #	Part #	U/M	Size
ER80SD-2 .035 × 33# Spool	One Spool	877511006582	80SD2035X33SP	LB	0.035
ER80SD-2 .045 × 33# Spool		877511007268	80SD2045X33SP	LB	0.045

WELDCOTE METALS STAINLESS STEEL WELDING WIRE

Stainless steel welding differs from mild or carbon steel welding in that the stainless steel has low thermal conductivity and high expansion characteristics.

Stainless steel expands approximately 50% more, but conducts heat 50% slower than mild or carbon steel, making it much more susceptible to warping caused by temperature changes. Stainless steel is broken down into three major groups listed below.

Austenitic Stainless Steel

Austenitic stainless steels include the chromium-nickel, AISI 200 and 300 series. This is the most common stainless steel group encountered and it is further divided into 7 smaller grades.

1. The 18/8 grades consist of 18% chromium and 8% nickel. These grades are the most common and include AISI types 301, 302, 304, 305, and 308.
2. The manganese grades consist of the AISI 200 series (AISI 201, 202, etc.).
3. The extra low carbon (L) grades, which include AISI 304L and 308L, contain .03% maximum carbon to eliminate damaging carbide precipitation.
4. The stabilized grades such as AISI 321, 347, 348 contain small amounts of titanium, columbium or a tantalum-columbium combination to provide protection in severe corrosive conditions.
5. The molybdenum grades include AISI 316, 316L, 317 and 317L. These grades have a higher molybdenum content to provide greater corrosion resistance against pitting caused by chemical corrosion.
6. The high temperature grades (AISI 302B, 309, 309S, 310, 310S) maintain their strength and scaling resistance at temperatures up to 2000°F.
7. The free-machining grades include AISI 303, 303SE. These grades contain sulfur, selenium and phosphorus making them very susceptible to porosity and cracking during welding.

Carbide Precipitation:

Carbide precipitation is a common problem encountered when welding with austenitic stainless steel. It occurs when the stainless steel is heated to temperatures in the 800°-1500°F range. At these temperatures, the carbon in the steel precipitates to the grain boundaries and unites with the chromium to form chromium carbides. When this happens, the stainless steel loses its corrosion resistance and eventually succumbs to intergranular corrosion.

There are several ways to prevent or control this breakdown of corrosion resistance.

The first method would be to use an electrode or wire from the extra low carbon (L) grades such as USA 308L or USA 316L. The lower the carbon content of the electrode or wire, the less likely carbide precipitation will occur.

The second method of controlling carbide precipitation would be to select an electrode or wire from the stabilized grades such as USA 347.

The columbium in USA 347 combines with the carbon before the formation of chromium carbides and preserving the corrosion resistance of the stainless steel.

Martensitic Stainless Steel

Martensitic stainless steel is considered a straight chromium steel that remains stable over all temperature ranges, retaining its good strength and scaling resistance at temperatures up to 1100°F.

Martensitic stainless steels do not undergo carbide precipitation, however they are affected by rapid temperature changes and will produce brittle, hard and crack sensitive welds if the base metal is not preheated to at least 400°F.

Preheating will minimize the temperature gradient and preserve the quality of the weld.

USA 410 and 502 would be considered martensitic stainless steels.

Ferritic Stainless Steel

Ferritic stainless steel is another type of straight chromium steel. This group becomes extremely brittle and crack sensitive when subjected to the higher temperatures of welding.

Therefore it is extremely important to preheat the base metal at a low temperature, use the lowest possible welding currents and the smallest diameter of electrode or wire.

This should help to decrease the possibility of embrittlement of cracking caused by excessive grain growth.

USA 430 would be considered a ferritic stainless steel.

STAINLESS STEEL GUIDE FOR FILLER METAL

AISI TYPE NUMBER	442 446	430F 430 FSE	430 431	501 502	416 416SE	403 405 410 420 414	321 348 347	317	316L	316	314	310 310S	309 309S	304L	303 303SE	201 301 302B 305	202 302 304 308	MILD STEEL	
201, 202, 301, 302,302B, 304,305,308	310 312 309	310 312 309	310 312 309	309 310 312	309 310 312	309 310 312	308	308	309 316	308	308	308	308	308	308	308		312 310 309	
303, 303SE	310 309 312	310 309 312	310 309 312	310 309 312	309 310 312	309 310 312	308	308	308	308	308	308	308	308	312 308-15	308		312 310 309	
304L	310 312 309	310 312 309	310 312 309	310 309 312	309 310 312	309 310 312	308	308L	308	308	308	308	308	308L	308	308		312 310 309	
309, 309S	310 309 312	310 309 312	310 309 312	310 309 312	309 310 312	309 310 312	308	317 316 309	316	316	309	309	308	308	308	308		309 310 312	
310, 310S	310 312 309	310 312 309	310 312 309	310 309 312	309 310 312	309 310 312	309	317 316 309	316	316	310	310	309 310	309	309	309		310 309 312	
314	310 309 312	310 309 312	310 309 312	310 309 312	309 310 312	309 310 312	309 310 308	309 310 310	309 310	309 310	310- 15	310	309 310	309 310	309 310	309 310	310	310 309 312	
316	310 312 309	310 312 309	310 312 309	310 309 312	309 310 312	309 310 312	308	316	316	316	309 310 316	310 309 316	309 310 316	309 316	309 316	309 316	316	309 310 312	
316L	310 309 312	310 309 312	310 309 312	310 309 312	309 310 312	309 310 312	308	316 317 308	316L	316	309 310 316	310 309 316	316 309	308 316	308 316	308 316	316	308 310 312	
317	310 312 309	310 312 309	310 312 309	310 309 312	309 310 312	309 310 312	308	317	316 308	316 308	309 310 317	317 316 309	317 316 309	308 316 317	308 316 317	308 316 317	317	309 310 312	
321, 348, 347	310 309 312	310 309 312	310 309 312	310 309 312	309 310 312	309 310 312	347 308	308 347	347 308	347 308	309 310 347	347 308	347 308	347 308	347 308	347 308	347 308	309 310 312	
403, 405, 410, 420, 414	310 312 309	310 312 309	310 312 309	310 309 312	309 310	410* 309**	309 310	309 310	309 310	309 310	310 309	310 309	309 310	309 310	309 310	309 310	310	310	309 310 312
416, 416SE	310 309	310 309	310 309	310	410	410* 309** 310**	309 310	309 310 312	309 310 312	309 310 312	309 310 312	310 309 312	309 310 312	309 310 312	309 310 312	309 310 312	310	310	309 310 312
501, 502	310	310	310	502 310	310	310	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309 312
430, 431	310 309	310 309	430 310 309	310	310	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309	310 309 312
430F, 430FSE	310 309	410	310 309	310 309	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	
442, 446	310 309	309 310 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	310 309 312	

* Preheat

** No Preheat Necessary

The first numbers indicate first choice, subsequent numbers indicated second and third choice.

This choice can vary with specific applications and individual job requirements.

307 STAINLESS STEEL

ER307 25# Spools (Skid Size is 2,025 Pounds)			UPC #	Part #	U/M	Size
307 .035 x 25# Spool	NEW	One Spool	812922015020	307035X25SP	LB	.035
307 .045 x 25# Spool	NEW		812922015037	307045X25SP	LB	.045

ER307 36" Cut Lengths			UPC #	Part #	U/M	Size
308 1/6 x 36	NEW	4-10 lb. Tubes in 40 lb. Carton	812922014825	307116X36T	LB	1/16
307 3/32 x 36	NEW		812922015006	307332X36T	LB	3/32
307 1/8 x 36	NEW		812922015013	30718X36T	LB	1/8

308 STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER308)

Description:

- Weldcote 308 stainless steel is used for TIG, MIG and submerged arc welding of un-stabilized stainless steels such as types 301,302, 304, 305, 308.
- This filler metal is the most popular grade among stainless steels and used for general purpose applications where corrosion conditions are moderate.

Applications:

- Weldcote 308 can also be certified as ER308H.
- This filler metal is used where resistance to corrosion, impact and abrasion is required.
- Weld deposits will be equal or superior to the base metal.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.08	1.00-2.50	0.30-0.65	19.5-21.0	9.0-11.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	39%	
Yield Strength (psi)	59,500 Psi	410 MPa
Tensile Strength (min)	88,500 Psi	610 MPa

Recommended Welding Parameters: ER308

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-340
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240



308LSi 0.35



308L 0.25

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	25	440-650
.035	180-300	24-29	30	430-500
.045	200-450	24-30	30-35	220-400
1/16	225-500	24-32	40	110-210
3/32	250-600	24-32	50	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER308 25# Spools		UPC #	Part #	U/M	Size
308 .035 x 25# Spool	One Spool	877511000047	308035X25SP	LB	.035
ER308 10# Spools		UPC #	Part #	U/M	Size
308 .025 x 10# Spool	One Spool	877511000009	308025X10SP	LB	.025
308 .030 x 10# Spool		877511000016	308030X10SP	LB	.030
308 .035 x 10# Spool		877511000023	308035X10SP	LB	.035
ER308 2# Spools		UPC #	Part #	U/M	Size
308 .030 x 2# Spool	2-20 lb. Spools per Carton	877511000078	308030X2SP	LB	.030
308 .035 x 2# Spool		877511000085	308035X2SP	LB	.035
ER308 36" Cut Lengths		UPC #	Part #	U/M	Size
308 .035 x 36	4-10 lb. Tubes in 40 lb. Carton	877511000771	308035X36T	LB	.035
308 1/16 x 36		877511000719	308116X36T	LB	1/16
308 3/32 x 36		877511000726	308332X36T	LB	3/32
308 1/8 x 36		877511000733	30818X36T	LB	1/8



308L STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER308L)

Description:

- Weldcote 308L has the same analysis as type 308 except the carbon content has been held to a maximum of .03% to reduce the possibility of intergranular carbide precipitation.
- 308L stainless steel is used for TIG, MIG and submerged arc welding of stainless steels such as types 201,202,301,302,304L,305, 308L, 321, and 347.

Applications:

This filler metal is suitable for applications at cryogenic temperatures.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.03	1.00-2.50	0.30-0.65	19.5-21.0	9.0-11.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	40%	
Yield Strength (psi)	57,000 Psi	390 MPa
Tensile Strength (min)	85,000 Psi	590 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-340
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER308L

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	25	440-650
.035	180-300	24-29	30	430-500
.045	200-450	24-30	30-35	220-400
1/16	225-500	24-32	40	110-210
3/32	250-600	24-32	50	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER308L 25# Spools		UPC #	Part #	U/M	Size
308L .025 x 25# Spool	One Spool	877511000429	308L025X25SP	LB	.025
308L .030 x 25# Spool		877511000436	308L030X25SP	LB	.030
308L .035 x 25# Spool		877511000443	308L035X25SP	LB	.035
308L .045 x 25# Spool		877511000450	308L045X25SP	LB	.045
308L 1/16 x 25# Spool		877511000467	308L116X25SP	LB	1/16
ER308L 10# Spools		UPC #	Part #	U/M	Size
308L .025 x 10# Spool	One Spool	877511000399	308L025X10SP	LB	.025
308L .030 x 10# Spool		877511000405	308L030X10SP	LB	.030
308L .035 x 10# Spool		877511000412	308L035X10SP	LB	.035
ER308L 2# Spools		UPC #	Part #	U/M	Size
308L .025 x 2# Spool	2-20 lb. Spools per Carton	877511000474	308L025X2SP	LB	.025
308L .030 x 2# Spool		877511000481	308L030X2SP	LB	.030
308L .035 x 2# Spool		877511000498	308L035X2SP	LB	.035
ER308L 36" Cut Lengths		UPC #	Part #	U/M	Size
308L .030 x 36	4-10 lb. Tubes in 40 lb. Carton	877511001181	308L030X36T	LB	.030
308L .035 x 36		877511001198	308L035X36T	LB	.035
308L .045 x 36		877511001204	308L045X36T	LB	.045
308L 1/16 x 36		877511001136	308L116X36T	LB	1/16
308L 3/32 x 36		877511001143	308L332X36T	LB	3/32
308L 1/8 x 36		877511001150	308L18X36T	LB	1/8
308L 5/32 x 36		877511001167	308L532X36T	LB	5/32
308L 3/16 x 36		877511001174	308L316X36T	LB	3/16

Description:

- Weldcote 308LSi has similar usages as 308L, but the 0.65-1.00% silicon content improves wash and wetting behavior in the gas shielded welding processes.
- Weldcote Metals 308LSi is available for TIG, MIG and submerged arc welding.

Applications:

- This wire is used to weld equipment made with 304 and 308 stainless grades.
- Welding speed is higher than 308 or 308L due to improved wettability of weld metal.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.03	1.00-2.50	0.65-1.00	19.5-21.0	9.0-11.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	39%	
Yield Strength (psi)	59,000 Psi	410 MPa
Tensile Strength (min)	86,500 Psi	600 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-340
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER308LSi

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	25	440-650
.035	180-300	24-29	30	430-500
.045	200-450	24-30	30-35	220-400
1/16	225-500	24-32	40	110-210
3/32	250-600	24-32	50	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER308LSi 25# Spools		UPC #	Part #	U/M	Size
308LSi .030 x 25# Spool	One Spool	877511000542	308LSi030X25SP	LB	.030
308LSi .035 x 25# Spool		877511000559	308LSi035X25SP	LB	.035
308LSi .045 x 25# Spool		877511000566	308LSi045X25SP	LB	.045
ER308LSi 10# Spools		UPC #	Part #	U/M	Size
308LSi .025 x 10# Spool	One Spool	877511000504	308LSi025X10SP	LB	.025
308LSi .030 x 10# Spool		877511000511	308LSi030X10SP	LB	.030
308LSi .035 x 10# Spool		877511000528	308LSi035X10SP	LB	.035
ER308LSi 2# Spools		UPC #	Part #	U/M	Size
308LSi .025 x 2# Spool	2-20 lb. Spools per Carton	877511000573	308LSi025X2SP	LB	.025
308LSi .030 x 2# Spool		877511000580	308LSi030X2SP	LB	.030
308LSi .035 x 2# Spool		877511000597	308LSi035X2SP	LB	.035
ER308LSi 500# Production Drum Pack		UPC #	Part #	U/M	Size
308LSi .035 x 500# Drum pk	500 lb Drum	877511005769	308LSi035X500D	LB	.035
308LSi .045 x 500# Drum pk		877511005776	308LSi045X500D	LB	.045
ER308LSi 36" Cut Lengths		UPC #	Part #	U/M	Size
308LSi .045 x 36	4-10 lb. Tubes in 40 lb. Carton	812922011688	308LSi045X36T	LB	.045
308LSi 1/16 x 36		877511001211	308LSi116X36T	LB	1/16
308LSi 3/32 x 36		877511001228	308LSi332X36T	LB	3/32
308LSi 1/8 x 36		877511001235	308LSi18X36T	LB	1/8

309 STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER309)

Description:

- Weldcote 309 is used for the welding of similar alloys in wrought or cast form.
- It is mostly used For welding dissimilar materials such as mild steel to stainless steel, as well as for a barrier layer in stainless overlays.

Applications:

- For some applications, welding of straight chromium steels can be accomplished with this alloy.
- Weldcote 309 wire produces sound ductile weld deposits.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.12	1.00-2.50	0.30-0.65	23.0-24.0	12.0-14.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	34%	
Yield Strength (psi)	59,500 Psi	420 MPa
Tensile Strength (min)	88,500 Psi	620 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	14-21	20-25	150-340
.035	60-200	14-22	20-25	120-400
.045	100-250	16-23	20-25	100-240

Recommended Welding Parameters: ER309

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	120-220	22-26	30	440-650
.035	150-225	23-26	35	430-500
.045	200-325	24-28	35	220-400
1/16	300-350	24-27	40	110-210
3/32	275-600	24-27	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER309 36" Cut Lengths	UPC #	Part #	U/M	Size
309 1/16 x 36	877511000795	309116X36	LB	1/16
309 3/32 x 36	877511000801	309332X36T	LB	3/32
309 1/8 x 36	877511000818	30918X36T	LB	1/8



Description:

Weldcote 309L is similar to 309 but contains an average of .02% carbon (max of .03%) to provide a weld deposit that will offer good resistance against intergranular corrosion caused by carbide precipitation.

Applications:

Weldcote Metals 309L is preferred over 309 for cladding over carbon or low alloy steels, as well as for dissimilar points that undergo heat treatment.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.3	1.00-2.50	0.30-0.65	23.0-25.0	12.0-14.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	36%	
Yield Strength (psi)	58,000 Psi	400 MPa
Tensile Strength (min)	85,000 Psi	590 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	14-21	20-25	150-340
.035	60-200	14-22	20-25	120-400
.045	100-250	16-23	20-25	100-240

Recommended Welding Parameters: ER309L

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	120-220	22-26	30	440-650
.035	150-225	23-26	35	430-500
.045	200-325	24-28	35	220-400
1/16	300-350	24-27	40	110-210
3/32	275-600	24-27	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER309L 25# Spools		UPC #	Part #	U/M	Size
309L .030 x 25# Spool	One Spool	877511000634	309L030X25SP	LB	.030
309L .035 x 25# Spool		877511000641	309L035X25SP	LB	.035
309L .045 x 25# Spool		877511000658	309L045X25SP	LB	.045
309L 1/16 x 25# Spool		877511006391	309L116X25SP	LB	1/16
ER309L 10# Spools		UPC #	Part #	U/M	Size
309L .025 x 10# Spool	One Spool	877511000603	309L025X10SP	LB	.025
309L .030 x 10# Spool		877511000610	309L030X10SP	LB	.030
309L .035 x 10# Spool		877511000627	309L035X10SP	LB	.035
ER309L 2# Spools		UPC #	Part #	U/M	Size
309L .030 x 2# Spool	2-20 lb. Spools per Carton	877511000665	309L030X2SP	LB	.030
309L .035 x 2# Spool		877511000672	309L035X2SP	LB	.035
ER309L 36" Cut Lengths		UPC #	Part #	U/M	Size
309L .035 x 36	4-10 lb. Tubes in 40 lb. Carton	877511001280	309L035X36T	LB	.035
309L .045 x 36		877511001297	309L045X36T	LB	.045
309L 1/16 x 36		877511001242	309L116X36T	LB	1/16
309L 3/32 x 36		877511001259	309L332X36T	LB	3/32
309L 1/8 x 36		877511001266	309L18X36T	LB	1/8
309L 5/32 x 36		877511001273	309L532X36T	LB	5/32
309L 3/16 x 36		877511009743	309L316X36T	LB	3/16

309LSi STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER309LSi)

Description:

- Weldcote 309LSi is of the same chemical composition as 309L, with higher silicon content to improve the bead appearance and increase welding ease.
- The weld beads are exceptionally smooth due to good wetting.

Applications:

- Weldcote 309LSi requires little clean up time with low spatter and minimal residue.
- 309LSi is used for joining 300 series stainless steel to carbon or low alloy steels.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.3	1.00-2.50	0.65-1.00	23.0-25.0	12.0-14.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	35%	
Yield Strength (psi)	60,500 Psi	420 MPa
Tensile Strength (min)	89,500 Psi	620 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER309LSi

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER309LSi 25# Spools		UPC #	Part #	U/M	Size
309LSi .035 × 25# Spool	One Spool	877511000696	309LSi035X25SP	LB	.035
309LSi .045 × 25# Spool		877511000702	309LSi045X25SP	LB	.045

ER309LSi 10# Spools		UPC #	Part #	U/M	Size	
309LSi .030 × 10# Spool	NEW	One Spool	812922013002	309LSi030X10SP	LB	.030
309LSi .035 × 10# Spool	NEW		812922013019	309LSi035X10SP	LB	.035

Description:

Weldcote 310 is used for the welding of stainless steels of similar composition in wrought or cast form, 310, 304 clad stainless steel, ferritic and martensitic chromium steels and for stainless steel overlay work on mild and carbon steels.

Applications:

- The weld deposit is fully austenitic, calls for low heat during welding, high strength and high resistance to scaling at elevated temperatures.
- This filler metal can also be used for dissimilar welding.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.08-0.15	1.00-2.50	0.30-0.65	25.0-27.0	20.0-22.0	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	34%	
Yield Strength (psi)	60,500 Psi	420 MPa
Tensile Strength (min)	89,500 Psi	620 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	70-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER310

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER310 36" Cut Lengths		UPC #	Part #	U/M	Size
310 1/16 × 36	4-10 lb. Tubes in 40 lb. Carton	877511000825	310116X36T	LB	1/16
310 3/32 × 36		877511000832	310332X36T	LB	3/32
310 1/8 × 36		877511000849	31018X36T	LB	1/8

312 STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER312)

Description:

- Weldcote 312 is used to weld cast alloys of similar composition and is used to weld dissimilar metals and weld overlays.
- 312 wire is used for high strength and high yield steels, stainless to mild steels and AISI 304 clad stainless steel.

Applications:

- This gives very high ferrite.
- When welding similar cast alloys, limit welding to two or three layers only.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.15	1.00-2.50	0.30-0.65	28.0-32.0	8.0-10.5	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	25%	
Yield Strength (psi)	78,500 Psi	540 MPa
Tensile Strength (min)	109,500 Psi	760 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER312

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER312 36" Cut Lengths		UPC #	Part #	U/M	Size
312 .035 x 36	4-10 lb. Tubes in 40 lb. Carton	812922011961	312035X36T	LB	.035
312 .045 x 36		877511009354	312045X36T	LB	.045
312 1/16 x 36		877511000856	312116X36T	LB	1/16
312 3/32 x 36		877511000863	312332X36T	LB	3/32
312 1/8 x 36		877511000870	31218X36T	LB	1/8
312 5/32 x 36		877511009392	312532X36T	LB	5/32

Description:

- Weldcote 316 is used to weld wrought and cast forms of similar composition.
- The presence of molybdenum increases its creep resistance at elevated temperatures.

Applications:

- The lower ferrite level of this nominal composition reduces the rate of corrosion in certain media and is suitable for use at cryogenic and elevated temperatures.

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	35%	
Yield Strength (psi)	59,000 Psi	410 MPa
Tensile Strength (min)	88,500 Psi	610 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	70-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER316

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

316 36" Cut Lengths		UPC #	Part #	U/M	Size
316 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511000887	316116X36T	LB	1/16
316 3/32 x 36		877511000894	316332X36T	LB	3/32
316 1/8 x 36		877511000900	31618X36T	LB	1/8



316L STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER316L)

Description:

- Weldcote 316L has the same analysis as ER316, except that the carbon content is limited to a maximum of 0.03% in order to reduce the possibility of formation of intergranular carbide precipitation.
- This filler metal is primarily used for welding low carbon molybdenum bearing austenitic alloys.

Applications:

- This low carbon alloy is not as strong at elevated temperatures as ER316H.
- 316L is used for welding AISI types 316L and 318 that may be exposed to organic and inorganic acids.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.03	1.00-2.50	0.30-0.65	18.0-20.0	11.0-14.0	2.5-3.0	0.02	0.03	0.30

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	36%	
Yield Strength (psi)	58,000 Psi	400 MPa
Tensile Strength (min)	86,000 Psi	590 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER316L

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER316L	UPC #	Part #	U/M	Size
316L .030 x 25# Spool	One Spool	877511000221	316L030X25SP	LB .030
316L .035 x 25# Spool		877511000238	316L035X25SP	LB .035
316L .045 x 25# Spool		877511000245	316L045X25SP	LB .045
316L 1/16 x 25# Spool		877511000252	316L116X25SP	LB 1/16
316L .025 x 10# Spool	One Spool	877511000191	316L025X10SP	LB .025
316L .030 x 10# Spool		877511000207	316L030X10SP	LB .030
316L .035 x 10# Spool		877511000214	316L035X10SP	LB .035
316L .025 x 2# Spool	2-20 lb. Spools per Carton	877511000269	316L025X2SP	LB .025
316L .030 x 2# Spool		877511000276	316L030X2SP	LB .030
316L .035 x 2# Spool		877511000283	316L035X2SP	LB .035

ER316L 36" Cut Lengths	UPC #	Part #	U/M	Size
316L .030 x 36	4-10 lb. Tubes in 40 lb. Carton	877511001037	316L030X36T	LB .030
316L .035 x 36		877511001044	316L035X36T	LB .035
316L .045 x 36		877511001051	316L045X36T	LB .045
316L 1/16 x 36		877511000986	316L116X36T	LB 1/16
316L 3/32 x 36		877511000993	316L332X36T	LB 3/32
316L 1/8 x 36		877511001006	316L18X36T	LB 1/8
316L 5/32 x 36		877511001013	316L532X36T	LB 5/32
316L 3/16 x 36		877511001020	316L316X36T	LB 3/16

Description:

- Weldcote 316LSi is similar to 316L, with a higher silicon content for optimum ease in welding and smooth bead appearance.
- Higher productivity could be realized in MIG welding.

Applications:

Weldcote 316LSi is used for welding austenitic acid-resistant steels such as those containing 18% Cr, 8% Ni, and 2-3%Mo.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.03	1.00-2.50	0.65-1.00	18.0-20.0	11.0-14.0	2.5-3.0	0.02	0.03	0.30

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	36%	
Yield Strength (psi)	58,500 Psi	410 MPa
Tensile Strength (min)	86,500 Psi	600 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER316LSi

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER316LSi		UPC #	Part #	U/M	Size
316LSi .030 × 25# Spool	One Spool	877511000320	316LSi030X25SP	LB	.030
316LSi .035 × 25# Spool		877511000337	316LSi035X25SP	LB	.035
316LSi .045 × 25# Spool		877511000344	316LSi045X25SP	LB	.045
316LSi .025 × 10# Spool	One Spool	877511000290	316LSi025X10SP	LB	.025
316LSi .030 × 10# Spool		877511000306	316LSi030X10SP	LB	.030
316LSi .035 × 10# Spool		877511000313	316LSi035X10SP	LB	.035
316LSi .030 × 2# Spool	2-20 lb. Spools per Carton	877511000368	316LSi030X2SP	LB	.030
316LSi .035 × 2# Spool		877511000375	316LSi035X2SP	LB	.035
316LSi .045 × 500# Drum pk	500 lb Drum	877511005837	316LSi045X500D	LB	.045

ER316LSi 36" Cut Lengths		UPC #	Part #	U/M	Size
316LSi .045 × 36	4-10 lb. Tubes in 40 lb. Carton	812922013033	316LSi045X36T	LB	.045
316LSi 1/16 × 36		877511001068	316LSi116X36T	LB	1/16
316LSi 3/32 × 36		877511001075	316LSi332X36T	LB	3/32
316LSi 1/8 × 36		877511001082	316LSi18X36T	LB	1/8

317L STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER317L)

Description:

- Weldcote 317L is used for welding stainless steels with similar composition. Due to its higher molybdenum content this alloy offers high resistance to pitting and crevice corrosion.
- Low carbon makes the weld metal less susceptible to inter granular corrosion.

Applications:

Weldcote 317L is used to weld austenitic acid resistant steels such as those containing 18% Cr, 8% Ni, 2-3%Mo.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.03	1.00-2.50	0.30-0.650	18.0-20.0	13.0-15.0	3.0-4.0	0.02	0.03	0.30

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	35%	
Yield Strength (psi)	58,000 Psi	400 MPa
Tensile Strength (min)	84,500 Psi	580 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER317L

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

ER317L 36" Cut Lengths		UPC #	Part #	U/M	Size
317L 1/16 × 36	4-10 lb. Tubes in 40 lb. Carton	877511001099	317L116X36T	LB	1/16
317L 3/32 × 36		877511001105	317L332X36T	LB	3/32
317L 1/8 × 36		877511001112	317L18X36T	LB	1/8
317L 5/32 × 36		877511001129	317L532X36T	LB	5/32

Description:

- Weldcote 347 is columbium stabilized stainless steel welding wire used to weld types 304, 304L 321 and 347.
- Addition of columbium reduces the possibility of chromium carbide precipitation and consequent intergranular corrosion.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu	Nb
Result (%)	0.08	1.00-2.50	0.30-0.65	19.0-21.0	9.0-11.0	0.3	0.02	0.03	0.3	12×C-1.00

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	35%	
Yield Strength (psi)	57,000 Psi	390 MPa
Tensile Strength (min)	86,500 Psi	600 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER347

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

347 36" Cut Lengths		UPC #	Part #	U/M	Size
347 .035 × 36	4-10 lb. Tubes in 40 lb. Carton	877511000962	347035X36T	LB	.035
347 .045 × 36		877511000979	347045X36T	LB	.045
347 1/16 × 36		877511000931	347116X36T	LB	1/16
347 3/32 × 36		877511000948	347332X36T	LB	3/32
347 1/8 × 36		877511000955	34718X36T	LB	1/8

410 STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER410)

Description:

- Weldcote 410 is used to weld types 403, 405, 410, and 416. It is also used for welding overlay on carbon steels to resist erosion or abrasion.
- 410 is a martensitic stainless steel but with a higher level of carbon.
- The increased carbon content gives the weld deposit greater resistance as well as moderate corrosion resistance.

Applications:

- Weld deposits will work-harden when put into service and so this filler metal is commonly used for surfacing applications.
- Preheat at 350°F and post weld heat treat between 1350°F and 1400°F for one hour is recommended.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu
Result (%)	0.12	0.6	0.5	12.0-13.5	0.6	0.3	0.02	0.03	0.3

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	24%	
Yield Strength (psi)	78,500 Psi	540 MPa
Tensile Strength (min)	89,000 Psi	620 MPa

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Short Circuit Transfer

Diameter	Amps	Volts	90%He + 7.5%Ar + 2.5%CO ² (cfh)	Wire Feed (ipm)
.030	60-125	17-22	20-25	150-430
.035	75-160	17-22	20-25	120-400
.045	100-200	17-22	20-25	100-240

Recommended Welding Parameters: ER410

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Diameter	Amps	Volts	98% Ar / 2% O ²	Wire Feed (ipm)
.030	160-225	24-28	30	440-650
.035	180-300	24-29	35	430-500
.045	200-450	24-30	35	220-400
1/16	220-500	24-32	40	110-210
3/32	250-600	24-32	45	50-80

GMAW (TIG) Parameters (DCSP) 2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

410 36" Cut Lengths		UPC #	Part #	U/M	Size
410 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511001303	410116X36T	LB	1/16
410 3/32 x 36		877511001310	410332X36T	LB	3/32
410 1/8 x 36		877511001327	41018X36T	LB	1/8

2209 STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER2209)

Description:

- Weldcote 2209 is a stainless steel alloy wire designed for welding AISI 316 stabilized and 316Ti or 318 austenitic stainless steels.
- 2209 produces duplex stainless steel weld deposits with a nearly balanced austenite-ferrite microstructure.
- Weldcote 2209 weld deposits exhibit high tensile strength, improved resistance to stress corrosion cracking and greater resistance to pitting than conventional austenitic grades of stainless steel.

Applications:

- 2209 is designed for welding 22% chromium duplex stainless steels such as ASME-ASTM A-182, A-276, A-479, A-789, A790, and A-890.
- Non-proprietary grades 2205 and 2304 duplex stainless steels can also be joined with 2209.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	S	P	Cu	N
Result (%)	0.03	0.50-2.0	0.9	21.5-23.5	7.5-9.5	2.5-3.5	0.03	0.03	0.75	0.08-0.2

GMAW (TIG) Parameters (DCSP)

2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	26%	
Yield Strength (psi)	80,500 Psi	550 MPa
Tensile Strength (min)	105,000 Psi	720 MPa

2209 36" Cut Lengths	UPC #	Part #	U/M	Size
2209 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511008722	2209116X36T	LB 1/16
2209 3/32 x 36		877511008524	2209332X36T	LB 3/32
2209 1/8 x 36		877511008739	220918X36T	LB 1/8

630 (17-4PH) STAINLESS STEEL

(Spec/Classification: AWS A5.9, ASME SFA 5.9 ER630)

Description:

- Weldcote 17-4 PH (630) is a martensitic precipitation, age-hardening 17% chromium - 4% nickel stainless steel designed for welding ASTM A564 Type 630 and other martensitic PH stainless steels such as 15-5.
- Weld deposits have excellent mechanical properties with high strength and hardness.

Applications:

- Weldcote 17-4 PH (630) can be used with all welding processes without preheating, however postweld heat treatment is recommended to produce weld properties comparable to the base metal.
- Commonly used in high temperature and abrasion resistant environments such as found in the petrochemical and aerospace industries.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	Mo	Cb & Ta	Cu
Result (%)	0.04	0.6	0.5	16.5	4.5	0.3	0.03	3.5

GMAW (TIG) Parameters (DCSP)

2% Lanthanated Tungsten Electrode Negative⁽³⁾

Material	Tungsten Dia ⁽³⁾	Filler Wire Size	Amps	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	3/8	20
3/32"	1/16"	1/16"	100-130	3/8	20
1/8"	3/32"	1/16"	120-150	7/16	20
3/16"	3/32"	3/32"	150-250	7/16	25
1/4"	1/8"	1/8"	200-350	1/2	25
1/2"	1/8"	1/8"	235-375	1/2	25

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	98-99% Argon / 1-2% O ²	
Elongation in 2" (%)	10%	
Yield Strength (psi)	150,000 Psi	1,030 MPa
Tensile Strength (min)	135,000 Psi	930 MPa

630 (17-4PH) 36" Cut Lengths	UPC #	Part #	U/M	Size
630 .045 x 36	4-10 lb. Tubes in 40 lb. Carton	812922012432	630045X36T	LB .045
630 1/16 x 36		877511009026	630116X36T	LB 1/16
630 3/32 x 36		877511008371	630332X36T	LB 3/32
630 1/8 x 36		877511009033	63018X36T	LB 1/8

All cut lengths are stamped on sizes 1/16 and above. Other types and sizes available upon request.

308LT1-1/4 FLUX CORED STAINLESS STEEL

(Spec/Classification: AWS A5.22, ASME SFA 5.22 E308LT1-1/4)

Description:

- Weldcote E308LT1-1 is a flux cored wire for flat, H-Fillet, V-up and down position welding for use with welding grade 100% CO² or (75%Ar-25%CO²) shielding gas.
- It provides excellent usability with a stable arc, less spattering and good bead appearance.

Applications:

- For mechanized welding of H-Fillet, this wire is an excellent choice as it meets the requirement of superior wire feeding properties combined with high deposition efficiency.
- E308LT1-1/4 is suitable for welding of low carbon 18%Cr-8%Ni austenitic stainless steel (AISI 301, 304, 304L, 305, 308, 308L and 347).

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	P	S
Result (%)	0.028	1.61	0.6	19.42	10.1	0.012	0.01

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	75% Argon / 25% O ²	
Elongation in 2" (%)	42%	
Yield Strength (psi)	76,000 Psi	527 MPa
Tensile Strength (min)	85,000 Psi	590 MPa

Recommended Welding Parameters: E308LT1-1/4

FCAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive

Wire Diameter	Welding Position	Joint Type	Plate Thickness	Amps	Volts	Deposition imp
.035	Flat	Butt	1/8"	70-90	25-27	12-16
.035	Flat	Butt	1/4"	120-130	26-29	10-14
.035	Flat	Fillet	1/4"	110-130	26-29	12-16
.035	Vertical up	Butt & Fillet	3/8"	70-90	22-25	6-10
.035	Horizontal	Butt	3/32"	100-120	24-27	12-16
.035	Overhead	Fillet	3/8"	150-200	26-28	8-12
.045	Flat	Butt	1/4"	180-200	29-32	12-16
.045	Flat	Fillet	3/8"	170-200	28-32	10-16
.045	Vertical up	Butt & Fillet	3/8"	110-140	21-24	4-8
.045	Horizontal	Butt	1/4"	150-180	26-30	10-16
.045	Overhead	Fillet	3/8"	150-200	26-28	10-14
1/16	Flat	Butt	1/4"	210-220	27-30	14-16
1/16	Flat	Fillet	3/8"	220-250	27-31	12-18
1/16	Vertical up	Butt & Fillet	3/8"	130-160	21-24	6-8
1/16	Horizontal	Butt	1/4"	150-200	26-30	10-16
1/16	Overhead	Fillet	3/8"	150-200	27-30	12-14

308LT1-1 25# Spools		UPC #	Part #	U/M	Size
308LT1-1 .035 x 25# Spool	One Spool	877511004458	308LT11035X25SP	LB	.035
308LT1-1 .045 x 25# Spool		877511004465	308LT11045X25SP	LB	.045
308LT1-1 1/16 x 25# Spool		877511004441	308LT11116X25SP	LB	1/16

309LT1-1/4 FLUX CORED STAINLESS STEEL

(Spec/Classification: AWS A5.22, ASME SFA 5.22 E309LT1-1/4)

Description:

- Weldcote E309LT1-1 is a flux cored wire suitable for welding of 22%Cr-12%Ni steel (AISI 309S), 18%Cr-8%Ni clad steel and dissimilar materials such as Cr-Mo steel or mild steel to stainless and build-up welding of carbon steel.
- E309LT1-1/4 welding positions are Flat, HFillet, V-up and down for CO₂ or Ar-CO₂ (75%Ar-25%CO₂) shielding gas.

Applications:

- It provides excellent usability with stable arc, less spattering and good bead appearance.
- For mechanized welding of H-Fillet, this wire is an excellent choice as it meets the requirement of superior wire feeding properties combined with high deposition efficiency.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	P	S
Result (%)	0.028	1.61	0.6	19.42	10.1	0.012	0.60

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	75% Argon / 25% O ₂	
Elongation in 2" (%)	42%	
Yield Strength (psi)	76,000 Psi	527 MPa
Tensile Strength (min)	85,000 Psi	590 MPa

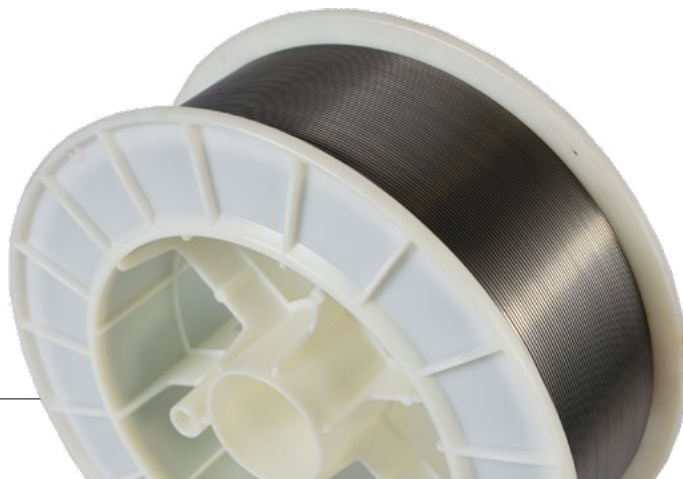
Recommended Welding Parameters: E309LT1-1/4

FCAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive

Wire Diameter	Welding Position	Joint Type	Plate Thickness	Amps	Volts	Deposition imp
.035	Flat	Butt	1/8"	70-90	25-27	12-16
.035	Flat	Butt	1/4"	120-130	26-29	10-14
.035	Flat	Fillet	1/4"	110-130	26-29	12-16
.035	Vertical up	Butt & Fillet	3/8"	70-90	22-25	6-10
.035	Horizontal	Butt	3/32"	100-120	24-27	12-16
.035	Overhead	Fillet	3/8"	150-200	26-28	8-12
.045	Flat	Butt	1/4"	180-200	29-32	12-16
.045	Flat	Fillet	3/8"	170-200	28-32	10-16
.045	Vertical up	Butt & Fillet	3/8"	110-140	21-24	4-8
.045	Horizontal	Butt	1/4"	150-180	26-30	10-16
.045	Overhead	Fillet	3/8"	150-200	26-28	10-14
1/16	Flat	Butt	1/4"	210-220	27-30	14-16
1/16	Flat	Fillet	3/8"	220-250	27-31	12-18
1/16	Vertical up	Butt & Fillet	3/8"	130-160	21-24	6-8
1/16	Horizontal	Butt	1/4"	150-200	26-30	10-16
1/16	Overhead	Fillet	3/8"	150-200	27-30	12-14

309LT1-1 | 25# Spools

309LT1-1 .035 x 25# Spool	UPC #	Part #	U/M	Size
309LT1-1 .035 x 25# Spool	877511008159	309LT11035X25SP	LB	.035
309LT1-1 .045 x 25# Spool	877511004496	309LT11045X25SP	LB	.045
309LT1-1 1/16 x 25# Spool	877511004472	309LT11116X25SP	LB	1/16



316LT1-1/4 FLUX CORED STAINLESS STEEL

(Spec/Classification: AWS A5.22, ASME SFA 5.22 E316LT1-1/4)

Description:

- Weldcote E316LT1-1 is a flux cored wire suitable for welding of 18%Cr-12%Ni steel (AISI 316) and extra-low carbon 18%Cr-12%Mo steel (AISI 316L).
- E316LT1-1/4 welding positions are Flat, H-Fillet, and V-up for CO² and 75%Ar-25%CO² shielding gas.

Applications:

- It provides excellent usability with stable arc, less spattering and good bead appearance.
- For mechanized welding of H-Fillet, this wire is an excellent choice as it meets the requirement of superior wire feeding properties combined with high deposition efficiency.

Typical Filler Wire/Rod Chemistry in weight (%):

	C	Mn	Si	Cr	Ni	P	S
Result (%)	0.028	1.61	0.6	19.42	10.1	0.012	0.10

Typical Mechanical Properties of Weld Metal:

Shielding Gas:	75% Argon / 25% O ²	
Elongation in 2" (%)	42%	
Yield Strength (psi)	76,000 Psi	527 MPa
Tensile Strength (min)	85,000 Psi	590 MPa

Recommended Welding Parameters: E316LT1-1/4

FCAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive

Wire Diameter	Welding Position	Joint Type	Plate Thickness	Amps	Volts	Deposition imp
.035	Flat	Butt	1/8"	70-90	25-27	12-16
.035	Flat	Butt	1/4"	120-130	26-29	10-14
.035	Flat	Fillet	1/4"	110-130	26-29	12-16
.035	Vertical up	Butt & Fillet	3/8"	70-90	22-25	6-10
.035	Horizontal	Butt	3/32"	100-120	24-27	12-16
.035	Overhead	Fillet	3/8"	150-200	26-28	8-12
.045	Flat	Butt	1/4"	180-200	29-32	12-16
.045	Flat	Fillet	3/8"	170-200	28-32	10-16
.045	Vertical up	Butt & Fillet	3/8"	110-140	21-24	4-8
.045	Horizontal	Butt	1/4"	150-180	26-30	10-16
.045	Overhead	Fillet	3/8"	150-200	26-28	10-14
1/16	Flat	Butt	1/4"	210-220	27-30	14-16
1/16	Flat	Fillet	3/8"	220-250	27-31	12-18
1/16	Vertical up	Butt & Fillet	3/8"	130-160	21-24	6-8
1/16	Horizontal	Butt	1/4"	150-200	26-30	10-16
1/16	Overhead	Fillet	3/8"	150-200	27-30	12-14

316LT1-1 25# Spools		UPC #	Part #	U/M	Size
316LT1-1 .035 x 25# Spool	One Spool	877511008791	316LT11035X25SP	LB	.035
316LT1-1 .045 x 25# Spool		877511004526	316LT11045X25SP	LB	.045
316LT1-1 1/16 x 25# Spool		877511004502	316LT11116X25SP	LB	1/16



ALUMINUM GUIDE FOR FILLER METAL

1060, 1070, 1080, 1350	ER4145	ER4145	ER4145	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	7004	6005, 6061 6063, 6101 6151, 6201 6351, 6951	ER4043 ^e	ER5356 ^g	ER5356 ^g	5086	5083	5052 5652	ER4043 ^{eg}	ER1100 ^{ef}	ER4043 ^{eg}	ER4145 ^{bc}	ER4145	ER1100 ^{ef}	1060 1070 1080 1350
1100, 3003, AlC3003	ER4145	ER4145	ER4145	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	7005	6009	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5086	5083	5052 5652	ER4043 ^{eg}	ER1100 ^{ef}	ER4043 ^{eg}	ER4145 ^{bc}	ER4145	ER1100 ^{ef}	1100 3003 AlC3003
2014, 2036	ER4145 ^c	ER4145 ^b	ER4145 ^b	ER4145	ER4145	ER4145	7039	6010	ER4145	ER4145	ER4145	5086	5083	5052 5652	ER4043 ^{eg}	ER1100 ^{ef}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	2014 2036
2219	ER2319 ^c	ER4145 ^b	ER4145 ^b	ER4145 ^{bc}	ER4043	ER4043	7100	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	2219
3004, AlC3004	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	3004 AlC3004
5005, 5050	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5005 5050
5052, 5652 ^a	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5052 5652
5083	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5083
5086	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5086
5154, 5254 ^a	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5154 5254
5454	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5454
5456	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^{fg}	ER5356 ^{fg}	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5456
6005, 6061, 6063, 6101, 6151, 6201, 6351, 6951	ER4145	ER4145 ^{bc}	ER4145 ^{bc}	ER4043 ^{eh}	ER5356 ^h	ER5356 ^h	7120	6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	6005, 6061, 6063, 6101, 6151, 6201, 6351, 6951
6009, 6010, 6070	ER4145	ER4145 ^{bc}	ER4145 ^{bc}	ER4043 ^{eh}	ER5356 ^h	ER5356 ^h	7120	6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	6009, 6010, 6070
7004, 7005, 7039	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	7004, 7005, 7039
7100, 7120	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	7120	6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	7100, 7120
5110, 5120, 5130	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	5110 5120 5130	6009 6010 6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5110, 5120, 5130
5140, 5350	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	ER4043 ^e	5140 5350	6009 6010 6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	5140, 5350
356.0, A356.0, 357.0, A357.0, 413.0, 413.0, 443.0, A444.0	ER4145 ^{bc}	ER4145 ^{bc}	ER4145 ^{bc}	ER4043 ^{ed}	ER4043 ^{ed}	ER4043 ^{ed}	356.0, A356.0, 357.0, A357.0, 413.0, 443.0, A444.0	6009, 6010, 6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	356.0, A356.0, 357.0, A357.0, 413.0, 443.0, A444.0
319.0, 333.0, 354.0, 355.0, C355.0	ER4145	ER4145	ER4145	ER4043 ^{ed}	ER4043 ^{ed}	ER4043 ^{ed}	319.0, 333.0, 354.0, 355.0, C355.0	6009, 6010, 6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	319.0, 333.0, 354.0, 355.0, C355.0
201.0, 206.0, 224.0	ER4145	ER4145	ER4145	ER4043 ^{ed}	ER4043 ^{ed}	ER4043 ^{ed}	201.0, 206.0, 224.0	6009, 6010, 6070	ER4043 ^{ee}	ER5356 ^h	ER5356 ^h	5154 5254	5454	5456	ER4043 ^{eg}	ER4043 ^{eg}	ER4043 ^{eg}	ER4145 ^b	ER4145	ER1100 ^{ef}	201.0, 206.0, 224.0

NOTES:

- a. Base metal alloys 5254 and 5652 are used for hydrogen peroxide service. ER5654 filler metal is used for welding both alloys for service temperatures below 150°F (66°C).
- b. ER2319 may be used for some applications. It can supply high strength when the weldment is postweld solution heat treated and aged.
- c. ER4145 may be used for some applications.
- d. Filler metal with the same analysis as the base metal is sometimes used.
- e. The following wrought filler metals possess the same chemical composition limits as cast filler alloys: ER4009 and R4009 as R-C355.0, ER4010 and R4010 as R-A356.0 and R4011 as R-A356.0.
- f. ER4047 may be used for some applications.
- g. ER4043 may be used for some applications.
- h. ER5183, ER5356, ER5554, ER5556, and ER5654 may be used. In some cases, they provide: improved color match after anodizing treatment, highest weld ductility, and higher weld strength.
- i. ER5554 is suitable for sustained elevated temperature service.
- j. ER4643 will provide high strength in 1/2 in. (12mm) and thicker groove welds in 6XXX base alloys when postweld solution heat treated and aged.
- k. ER1100 may be used for some applications.

Courtesy: American Welding Society, Inc./AWS A5.10-92

1100 ALUMINUM

(Spec/Classification: AWS A5.10, ASME SFA 5.10 ER1100)

Description:

- Weldcote 1100 (commonly referred to as AL 99.5) is a 99% aluminum filler metal that is available in Spools or cut lengths for MIG or TIG welding processes.
- 1100 aluminum filler metal is designed for applications with electrical conductivity requirements and chemical storage facilities.
- The features and benefits consist of highest ductility/formability, highest electrical and thermal conductivity, excellent corrosion resistance, moderate shrinkage rate, good hot cracking sensitivity, low welding smut and discoloration.

Applications:

Applications are electrical conductors, chemical storage tanks, decorative applications (due to slight golden color after anodizing), refrigeration, food handling equipment and heat exchangers.

Typical Filler Wire/Rod Chemistry in weight (%):

	Al	Fe & Si	Cu	Mn	Zn	Others
Result (%)	99.0 min	0.95 max	0.05-0.20	0.05 max	0.10 max	0.15 max

Recommended Welding Parameters: ER1100 Aluminum

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive

Shielding Gas: 100% Argon (Ar) or Argon/Helium mixtures, 35-50 cfh

Diameter	Base Material Thickness	Amps		Volts		Wire Speed (ipm)	
		4xxx	5xxx	4xxx	5xxx	4xxx	5xxx
.035	1/16	90	100	23	21	300	350
.035	1/8	130	140	24	22	400	450
3/64	3/32	110	120	25	24	170	220
3/64	1/8	150	160	26	25	270	330
3/64	1/4	190	220	26	25	320	370
3/64	3/8	220	230	27	25	390	450
1/16	1/4	200	210	26	24	170	200
1/16	3/8	230	240	27	25	200	230
1/16	1/2	260	270	28	26	240	270
1/16	3/4	280	290	29	27	260	300
1/16	1	300	310	30	28	280	320

Note: Above information was determined by using 100% Argon shielding gas with a flow rate of 35-50 cfh

GMAW (TIG) Procedures: ACHF Tungsten Depends on Power Supply Type

Base Material	Tungsten Dia	Filler Wire Size	Amps	Volts	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	60-80	15	3/8"	20
1/8"	3/32"	3/32"	125-160	15	3/8"	20
3/16"	1/8"	1/8"	190-220	15	7/16"	20
1/4"	5/32"	5/32"	200-300	15	1/2"	25
3/8"	3/16"	3/16"	330-380	15-20	5/8"	25
1/2"	1/4"	1/4"	400-450	25	5/8"	25

Note: Procedures are based on flat position and may vary with change in position, base metal, equipment and other changes.

1100 ALUMINUM 16# Spools		UPC #	Part #	U/M	Size
1100 3/64 x 16# Spool	One Spool	877511009286	1100364X16SP	LB	3/64
1100 ALUMINUM 36" Cut Lengths 10# Boxes		UPC #	Part #	U/M	Size
1100 1/16 x 36 x 10# Box	4-10 lb. Tubes in 40 lb. Carton	877511009293	1100116X36T	LB	1/16

Description:

- Weldcote 4043 (commonly referred to as AlSi5) is a 5% silicon aluminum filler metal that is available in Spools or cut lengths for MIG or TIG welding processes.
- 4043 aluminum filler metal is recommended for welding 3003, 3004, 5052, 6061, 6063 and casting alloys 43, 355, 356, and 214.
- The melting range is 1065-1170°F with a density of .097 lbs./cu.in.
- The average tensile strength is 27,000 psi, average yield strength of 18,000 psi and the post anodizing color is gray.

Applications:

- 4043 aluminum filler metal is one of the oldest and most widely used welding and brazing alloys.
- The silicon additions result in improved fluidity (wetting action) to make the alloy a preferred choice by welders.
- The alloy is less sensitive to weld cracking and produces brighter, almost smut free welds.

Typical Filler Wire/Rod Chemistry in weight (%):

	Si	Fe	Cu	Mn	Mg	Zn	Ti	Others	Al
Result (%)	4.5-6.0	0.8	0.3	0.05	0.05	0.1	0.2	0.15	Balance

Recommended Welding Parameters: ER4043

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Base Metal Thickness	Wire Diameter	Amps	Volts	Argon (cfh)
1/16"	.030"	70-100	15-20	25
1/8"	.030"-3/64"	120-150	20-24	30
3/16"	.030"-3/64"	130-210	22-26	30-35
1/4"	3/64"-1/16"	170-225	24-28	40
3/8"	1/16"	225-300	26-29	50

GMAW (TIG) Procedures: ACHF Tungsten Depends on Power Supply Type

Base Material	Tungsten Dia	Filler Wire Size	Amps	Volts	Gas Cup	Argon (cfh)
1/16"	1/16"-3/32"	1/16"-3/32"	70-100	15	3/8"	20
1/8"	1/8"-5/32"	1/8"-5/32"	125-175	15	7/16"	20
3/16"	5/32"-3/16"	5/32"-3/16"	170-225	15	7/16"-1/2"	25
1/4"	3/16"-1/4"	3/16"	220-275	15	1/2"	30
3/8"	1/4"	3/16"-1/4"	330-380	15	5/8"	35
1/2"	1/4"	1/4"	400-500	25	5/8"	35

Note: Procedures are based on flat position and may vary with change in position, base metal, equipment and other changes.

4043 ALUMINUM		UPC #	Part #	U/M	Size
4043 .030 × 16# Spool	One Spool	877511007244	4043030X16SP	LB	.030
4043 .035 × 16# Spool		877511001358	4043035X16SP	LB	.035
4043 3/64 × 16# Spool		877511001365	4043364X16SP	LB	3/64
4043 1/16 × 16# Spool		877511001372	4043116X16SP	LB	1/16
4043 .030 × 1# Spool	2-20 lb. Spools per Carton	877511001396	4043030X1SP	LB	.030
4043 .035 × 1# Spool		877511001402	4043035X1SP	LB	.035
4043 3/64 × 1# Spool		877511001419	4043364X1SP	LB	3/64
4043 .035 × 150# Drum	One Drum	812922014924	4043035X150D	LB	.035
4043 3/64 × 150# Drum		812922014931	4043364X150D	LB	3/64
4043 3/64 × 36 × 10# Box	4-10 lb. Tubes in 40 lb. Carton (5 lb. Tubes also available)	877511007282	4043364X36T	LB	3/64
4043 1/16 × 36 × 10# Box		877511001518	4043116X36T	LB	1/16
4043 3/32 × 36 × 10# Box		877511001525	4043332X36T	LB	3/32
4043 1/8 × 36 × 10# Box		877511001532	404318X36T	LB	1/8
4043 5/32 × 36 × 10# Box		877511001549	4043532X36T	LB	5/32
4043 3/16 × 36 × 10# Box		877511001556	4043316X36T	LB	3/16

4047 ALUMINUM

(Spec/Classification: AWS A5.10, AWS A5.8 BA5i-4 ER4047)

Description:

- Weldcote 4047 (commonly referred to as AlSi12 or 718 aluminum) is a 12% silicon aluminum filler metal that is available in Spools or cut lengths for MIG, TIG and brazing welding processes.
- 4047 was originally developed as a brazing alloy to take advantage of its low melting point and narrow freezing range. Additionally, it has a higher silicon content than 4043, which provides for increased fluidity and reduced shrinkage.
- Weldcote 4047 produces bright smut free welds. Hot cracking is significantly reduced when 4047 is used as a filler alloy.

Applications:

- 4047 may be used in applications of sustained elevated temperatures. 4047 is a non-heat treatable alloy.
- Weldcote 4047 is recommended for welding the following alloys: 1060, 1350, 3003, 5005, 5050, 6053, 6951, 7005 and cast alloys such as 710.0 and 711.0.
- Weldcote 4047 has an approximate melting range of 1065°-1170°F and the post anodizing color tint is grayish black.
- Density is .097 lbs./cu. In.

Typical Filler Wire/Rod Chemistry in weight (%):

	Si	Fe	Cu	Mn	Mg	Zn	Be	Others	Al
Result (%)	11.0-13.0	0.8	0.3	0.15	0.1	0.2	0.0008	0.15	Balance

Recommended Welding Parameters: ER4047

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Base Metal Thickness	Wire Diameter	Amps	Volts	Argon (cfh)
1/16"	.030"	60-170	13-24	25-30
1/8"	.030"-.035"	70-185	15-27	30-35
3/16"	.035"-3/64"	125-260	20-29	35-45
1/4"	3/64"-1/16"	170-300	24-30	45-55
3/8"	1/16"	275-400	26-31	60-70

GMAW (TIG) Procedures: ACHF Tungsten Depends on Power Supply Type

Base Material	Tungsten Dia	Filler Wire Size	Amps	Volts	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	60-80	15	3/8"	20
1/8"	3/32"	3/32"	125-160	15	3/8"	20

4047 ALUMINUM 16# Spools		UPC #	Part #	U/M	Size
4047 3/64 x 16# Spool	One Spool	812922011879	4047364X16SP	LB	3/64
4047 ALUMINUM 36" Cut Lengths 10# Boxes		UPC #	Part #	U/M	Size
4047 3/32 x 36 x 10# Box	4-10 lb. Tubes in 40 lb. Carton	812922015235	4047332X36T	LB	3/32
4047 1/8 x 36 x 10# Box		812922015051	404718X36T	LB	1/8



4047 Aluminum



5356 Aluminum

Description:

- Weldcote 5356 (commonly referred to as AlMg5) is a 5% magnesium aluminum filler metal that is available in Spools or cut lengths for MIG or TIG welding processes.
- 5356 aluminum filler metal is recommended for welding 5050, 5052, 5083, 5356, 5454, and 5456.
- The melting range is 1060-1175°F with a density of .096 lbs./cu.in.
- The average tensile strength is 39,000 psi, average yield strength of 19,000 psi and the post anodizing color is white.

Applications:

- 5356 aluminum filler metal offers a much better corrosion resistance when exposed to salt water.
- 5356 filler metal is ideal for general purpose welding and is typically used in the construction industry in fabricating truck trailers, small fishing boats and in cryogenic applications.

Typical Filler Wire/Rod Chemistry in weight (%):

	Si	Fe	Cu	Mn	Mg	Zn	Ti	Others	Al
Result (%)	0.25	0.4	0.05	0.10-0.20	4.50-5.50	0.1	0.06-0.15	0.15	Balance

Recommended Welding Parameters: ER5356

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Base Metal Thickness	Wire Diameter	Amps	Volts	Argon (cfh)
1/16"	.030"	70-100	15-20	25
1/8"	.030"-3/64"	120-150	20-24	30
3/16"	.030"-3/64"	130-210	22-26	30-35
1/4"	3/64"-1/16"	170-225	24-28	40
3/8"	1/16"	225-300	26-29	50

GMAW (TIG) Procedures: ACHF Tungsten Depends on Power Supply Type

Base Material	Tungsten Dia	Filler Wire Size	Amps	Volts	Gas Cup	Argon (cfh)
1/16"	1/16"-3/32"	1/16"-3/32"	70-100	15	3/8"	20
1/8"	1/8"-5/32"	1/8"-5/32"	125-175	15	7/16"	20
3/16"	5/32"-3/16"	5/32"-3/16"	170-225	15	7/16"-1/2"	25
1/4"	3/16"-1/4"	3/16"	220-275	15	1/2"	30
3/8"	1/4"	3/16"-1/4"	330-380	15	5/8"	35
1/2"	1/4"	1/4"	400-500	25	5/8"	35

Note: Procedures are based on flat position and may vary with change in position, base metal, equipment and other changes.

5356-ABS Approved for .035 and 3/64 diameters		UPC #	Part #	U/M	Size
5356 .035 × 16# Spool	One Spool	877511001433	5356035X16SP	LB	.035
5356 3/64 × 16# Spool		877511001440	5356364X16SP	LB	3/64
5356 1/16 × 16# Spool		877511001457	5356116X16SP	LB	1/16
5356 .030 × 10# Spool	One Spool	812922014832	5356030X10SP	LB	.030
5356 .035 × 10# Spool		877511001426	5356035X10SP	LB	.035
5356 3/64 × 10# Spool		812922012883	5356364X10SP	LB	3/64
5356 .030 × 1# Spool	1-20 lb. Spools per Carton	877511001488	5356030X1SP	LB	.030
5356 .035 × 1# Spool		877511001495	5356035X1SP	LB	.035
5356 3/64 × 1# Spool		877511001501	5356364X1SP	LB	3/64
5356 3/64 × 36 × 10# Box	4-10 lb. Tubes in 40 lb. Carton (5 lb. Tubes also available)	877511008180	5356364X36T	LB	3/64
5356 1/16 × 36 × 10# Box		877511001563	5356116X36T	LB	1/16
5356 3/32 × 36 × 10# Box		877511001570	5356332X36T	LB	3/32
5356 1/8 × 36 × 10# Box		877511001587	535618X36T	LB	1/8
5356 5/32 × 36 × 10# Box		877511001594	5356532X36T	LB	5/32

All cut lengths are stamped. Other types and sizes available upon request.

WELDCOTE 82 TIG & MIG

Description:

- Weldcote 82 is used for the welding of Inconel® alloys 600, 601 and 690, Incoloy® alloys 800 and 800HT, and Inco® alloy 330.
- This filler metal is also used for surfacing of steel. Weld metal deposited by alloy 82 has high strength and good corrosion resistance, including oxidation resistance and creep-rupture strength at elevated temperatures.

Applications:

- Alloy 82 is used in dissimilar-welding such as joining Inconel® alloys, Incoloy® alloys and Inconel® alloy 330 to nickel, Monel® alloys, stainless steels and carbon steels.
- This filler metal is also used to join stainless steels to nickel alloys to carbon steels.

Chemical Composition Limits (%):

	Ni	C	Mn	Fe	S	Si	Cr	Ti	P	Cb+Ta	Cu	OET
Result (%)	67 min	0.10 max	2.5-3.5 max	3 max	0.015 max	0.50 max	18-22	0.75 max	0.03 max	2-3	0.50 max	0.50 max

WELDCOTE 625 TIG & MIG

Description:

- Weldcote 625 is an Inconel Type nickel-chromium-molybdenum alloy with an addition of niobium. The addition of molybdenum acts with the niobium to stiffen the alloy matrix, providing a high strength without a strengthening heat treatment.
- The alloy resists a wide range of corrosive environments and has a good resistance to pitting and crevice corrosion.

Applications:

Alloy 625 is used in chemical processing, aerospace and marine engineering oil & gas, pollution control equipment and nuclear reactors.

Chemical Composition Limits (%):

	Ni	Cr	Mo	Nb + Ta	Fe	Ti	C	Mn	Si	S
Result (%)	58.0 min	20 - 23	8-10	3.15 -4.15	5.0 max	0.40 max	0.10 max	0.50 max	0.50 max	0.15 max

WELDCOTE 60 TIG & MIG

Description:

Weldcote 60 alloy is designed for MIG, TIG and submerged arc welding of nickel-copper (Monel®) alloys 400 and 404 to themselves or to each other.

Applications:

- Weldcote 60 alloy is also used for dissimilar applications such as joining nickel-copper (Monel®) alloys to nickel base alloy 200 and for joining nickel-copper (Monel®) alloys 400 and 404 or nickel base alloy 200 to copper-nickel and copper alloys as well as K-500.
- Great resistance to Corrosion, Chemicals and Salt Water.

Chemical Composition Limits (%):

	Ni	C	Mn	Fe	Si	Cu	Al	Ti	P	S	OET
Result (%)	62-69	0.15 max	4.0 max	2.5 max	1.25 max	Bal	1.25 max	1.5-3.0	0.02 max	0.015 max	0.50 max

WELDCOTE NICKEL 276 TIG & MIG

Description:

- Weldcote 276 is a nickel-molybdenum-chromium alloy with an addition of tungsten designed to have excellent corrosion resistance in a wide range of severe environments.
- The high nickel and molybdenum contents make the nickel steel alloy especially resistant to pitting and crevice corrosion in reducing environments while chromium conveys resistance to oxidizing media. The low carbon content minimizes carbide precipitation during welding to maintain corrosion resistance in as-welded structures.
- This nickel alloy is resistant to the formation of grain boundary precipitates in the weld heat-affected zone, thus making it suitable for most chemical process application in an as welded condition.

Applications:

- Alloy 276 is widely used in the most severe environments such as chemical processing, pollution control, pulp and paper production, industrial and municipal waste treatment, and recovery of natural gas.
- 276 exhibits excellent resistance in a wide variety of chemical process environments.
- This alloy has excellent resistance to pitting and stress corrosion cracking.

Chemical Composition Limits (%):

	Ni	Mo	Cr	Fe	W	Co	Mn	C	V	P	S	Si
Result (%)	Remainder	15.0-17.0	14.5-16.5	4.0-7.0	3.0-4.5	2.5 max	1.0 max	.01 max	.35 max	.04 max	.03 max	.08 max

WELDCOTE 67 TIG & MIG

Description:

- Weldcote 67 is used for oxyacetylene and gas-tungsten-arc welding of Monel® alloy 450.
- This alloy used for welding on 70/30, 80/20 and 90/10 copper-nickel alloys.

Applications:

- The weld metal of this filler metal has excellent resistance to corrosion and sea water, and is widely used for marine and desalination applications.
- Dissimilar welding applications for Alloy 67 are joints between Monel® alloys or Nickel 200 and copper-nickel alloys.

Chemical Composition Limits (%):

	Ni + Co	Mn	Fe	Si	Cu+Ag	Ti	P	Pb	OET
Result (%)	29-32	1 max	0.40-0.75	0.25 max	Bal	0.20-0.50	0.02 max	0.02 max	0.50 max

WELDCOTE NICKEL 61 TIG & MIG

Description:

- Weldcote Alloy 61 is used for the welding of Nickel 200 and 201. The reaction of titanium with carbon maintains a low level of free carbon and enables the filler metal to be used with Nickel 201.
- The weld metal of Alloy 61 has good corrosion resistance, particularly in alkalis.

Applications:

- Dissimilar-welding applications for Alloy 61 include joining Nickel 200 and 201 to stainless steels, carbon steels, Inconel® alloys, Inconel® alloys, copper-nickel alloys, and Monel® alloys.
- This filler metal is also used for joining Monel® alloys and copper-nickel alloys to carbon steels, and for joining copper-nickel alloys to Inconel® and Inconel alloys.

Chemical Composition Limits (%):

	Ni	C	Mn	Fe	S	Si	Cu	Al	Ti	P	OET
Result (%)	93	0.15 max	1.0 max	1.0 max	0.015 max	0.75 max	0.25 max	1.5 max	2-3.5 max	0.03 max	0.50 max

NICKEL TIG

NICKEL 82 (ERNiCr-3) 36" Cut Lengths		UPC #	Part #	U/M	Size
Nickel 82 .045 × 36	4-10 lb. Tubes in 40 lb. Carton (Available in 1 pound tubes)	877511008401	NI82045X36T	LB	.045
Nickel 82 1/16 × 36		877511005851	NI82116X36T	LB	1/16
Nickel 82 3/32 × 36		877511005868	NI82332X36T	LB	3/32
NICKEL 625 (ERNiCrMo-3) 36" Cut Lengths		UPC #	Part #	U/M	Size
Nickel 625 3/32 × 36	4-10 lb. Tubes in 40 lb. Carton (Available in 1 pound tubes)	877511006841	NI625332X36T	LB	3/32
Nickel 625 1/8 × 36		877511006834	NI62518X36T	LB	1/8
NICKEL 60 (ERNiCu-7) 36" Cut Lengths		UPC #	Part #	U/M	Size
Nickel 60 1/16 × 36	4-10 lb. Tubes in 40 lb. Carton (Available in 1 pound tubes)	812922011541	NI60116X36T	LB	1/16
Nickel 60 3/32 × 36		877511009149	NI60332X36T	LB	3/32
NICKEL 67 (ERCuNi) 36" Cut Lengths		UPC #	Part #	U/M	Size
Nickel 67 3/32 × 36	4-10 lb. Tubes in 40 lb. Carton (Available in 1 pound tubes)	812922014818	NI67332X36T	LB	3/32
Nickel 67 1/8 × 36		812922013408	NI6718X36T	LB	1/8
NICKEL C276 (ERNiCrMo-4) 36" Cut Lengths		UPC #	Part #	U/M	Size
Nickel C276 1/16 × 36	4-10 lb. Tubes in 40 lb. Carton (Available in 1 pound tubes)	812922010513	NIC276116X36T	LB	1/16
Nickel C276 1/8 × 36		812922012371	NIC27618X36T	LB	1/8

NICKEL MIG

NICKEL 625 (ERNiCrMo-3) 11#/33# Spools		UPC #	Part #	U/M	Size
Nickel 625 .035 × 11# Spool	One Spool	812922015433	NI625035X11SP	LB	.035
Nickel 625 .035 × 33# Spool		877511007992	NI625035X33SP	LB	.035
Nickel 625 .045 × 33# Spool		812922011176	NI625045X33SP	LB	.045
NICKEL 82 (ERNiCr-3) 11#/33# Spools		UPC #	Part #	U/M	Size
Nickel 82 .035 × 11# Spool	One Spool	812922015396	NI82035X11SP	LB	.035
Nickel 82 .035 × 33# Spool		812922015402	NI82035X33SP	LB	.035
Nickel 82 .045 × 33# Spool		812922015419	NI82045X33SP	LB	.045
NICKEL 61 (ERNi-1) 11#/33# Spools		UPC #	Part #	U/M	Size
Nickel 61 .035 × 11# Spool	One Spool	812922015594	NI61035X11SP	LB	.035
Nickel 61 .035 × 33# Spool		812922015600	NI61035X33SP	LB	.035
Nickel 61 .045 × 33# Spool		812922015617	NI61045X33SP	LB	.045
NICKEL 60 (ERNiCu-7) 11#/33# Spools		UPC #	Part #	U/M	Size
Nickel 60 .035 × 11# Spool	One Spool	812922015549	NI60035X11SP	LB	.035
Nickel 60 .035 × 33# Spool		812922015556	NI60035X33SP	LB	.035
Nickel 60 .045 × 33# Spool		812922015563	NI60045X33SP	LB	.045
NICKEL 67 (ERCuNi) 11#/33# Spools		UPC #	Part #	U/M	Size
Nickel 67 .035 × 11# Spool	One Spool	812922015518	NI67035X11SP	LB	.035
Nickel 67 .035 × 33# Spool		812922015525	NI67035X33SP	LB	.035
Nickel 67 .045 × 33# Spool		812922015532	NI67045X33SP	LB	.045
NICKEL C276 (ERNiCrMo-4) 33# Spools		UPC #	Part #	U/M	Size
Nickel C276 .035 × 33# Spool	One Spool	877511009064	NIC276035X33SP	LB	.035
Nickel C276 .045 × 33# Spool		812922015488	NIC276045X33SP	LB	.045

ALUMINUM BRONZE A-1 ALLOY NO. 610 / A-2 ALLOY NO. 618

(Spec/Classification: AWS A5.7 Class ERCuAl-A1 / Class ERCuAl-A2 / ASME SFA 5.7)

Description:

Weldcote ALB-A1 is an iron free aluminum bronze filler metals used for MIG and TIG overlay welding of bearing and wear resistant surfaces exposed to corrosive environments such as salt or brackish water and commonly used acids.

Applications:

Commonly used in steel and pulp mills to overlay tube sheets, valve seats and refineries.

Recommended Welding Parameters:

ALB-A1 / ALB-A2

Nominal Composition (%):

		Si	Pb	Al	Zn	Fe	Mn	Others	Cu
Result (%)	A-1	0.100	0.020	6.0-8.5	0.100	1.500	0.500	0.500	Balance
	A-2	0.100	0.020	8.0-11.0	0.020	1.500		0.500	Balance

Description:

- Weldcote ALB-A2 is an iron bearing MIG and TIG filler metal used for joining aluminum bronze of similar composition, silicon and manganese bronze, high strength copper-zinc alloys, some copper-nickel alloys, ferrous metals and dissimilar metals.
- Dissimilar metal combinations would include aluminum bronze to steel and copper to steel. Weldcote Metals' Aluminum Bronze A-2 is excellent for buildup or overlaying metal for wear and corrosion resistant surfaces.

Applications:

Most common applications would include marine maintenance and repair welding of ship propellers.

Typical Mechanical Properties of Weld Metal:

	A-1	A-2
Melting Point	1945°F (1046°C)	1915°F (1040°C)
Yield Strength	28,000 Psi	35,000 Psi
Elongation	47%	28%
Reduction of area	53%	28%
Tensile Strength	68,000 Psi	79,000 Psi
Brinell Hardness	125 HB	140 HB

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Wire Diameter	Amps	Volts	Argon (cfh)	Wire Feed (ipm)
.030"	80-140	25-26	25	340-450
.035"	130-200	26-27	30	280-400
.045"	185-245	27-28	30	200-300
1/16"	250-400	28-30	40	150-210

GMAW (TIG) Procedures: (DCSP) 2% Lanthanated Tungsten Electrode Negative or ACHF

Material	Tungsten Dia	Filler Wire Size	Amps (DC)	Amps (AC)	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	80-120	80-120	3/8"-1/2"	15
3/32"	3/32"	3/32"	145-195	145-195	7/16"-1/2"	15
1/8"	3/32"	3/32"	155-205	150-195	7/16"-1/2"	15-20
3/16"	1/8"	3/32"-1/8"	300-350	355-300	7/16"-1/2"	20
1/2"	3/16"	1/8"	515-640	340-485	1/2"	25

* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

ALB-A1 ALUMINUM BRONZE 30# Spools		UPC #	Part #	U/M	Size
ALB-A1 .045 x 30# Spool	One Spool	877511002140	ALBA1045X30SP	LB	.045
ALB-A2 ALUMINUM BRONZE 30# Spools		UPC #	Part #	U/M	Size
ALB-A2 .035 x 30# Spool	One Spool	877511002164	ALBA2035X30SP	LB	.035
ALB-A2 .045 x 30# Spool		877511002171	ALBA2045X30SP	LB	.045
ALB-A2 1/16 x 30# Spool		877511002188	ALBA2116X30SP	LB	1/16
ALB-A2 ALUMINUM COPPER FOR TIG 36"		UPC #	Part #	U/M	Size
ALB-A2 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511002522	ALBA2116X36T	LB	1/16
ALB-A2 3/32 x 36		877511002539	ALBA2332X36T	LB	3/32
ALB-A2 1/8 x 36		877511002546	ALBA218X36T	LB	1/8

DEOXIDIZED COPPER ALLOY NO. 189

(Spec/Classification: AWS A5.7 Class ERCu & AWS A5.27 Class ERCu)

Description:

- Weldcote Metals DEOX Copper is a 98% copper filler metal used for MIG, TIG and oxy-acetylene welding of copper and copper-alloyed base metals.
- DEOX copper contains small amounts of phosphorus and silicon which act as the deoxidizing agents to promote sound weld joints.
- DEOX Copper is easy flowing and produces weld deposits that are porosity free, electrically conductive and the color will match that of copper.

Applications:

- Excellent for joining copper to mild steel, for overlaying steel and for the fabrication of copper pipes, tanks and copper fittings.
- The oxy-acetylene gas flame must be neutral or slightly oxidizing.
- Tip size must be one to two sizes larger than the base plate.
- Preheating should be done only if the part is thick.
- A boric acid or borax flux is recommended.

Nominal Composition (%):

	Si	Mn	Pb	Al	P	Sn	Others	Cu
Result (%)	0.500	0.500	0.020	0.010	0.150	1.000	0.500	98.000

Physical Properties:

Melting Point	1967°F (1075°C)	Tensile Strength	29,000 Psi
Yield Strength	8,000 Psi	Brinell Hardness	54 HB
Elongation	29%	Electrical Conductivity (%IACS)	40%
Reduction of area	45%		

Recommended Welding Parameters: DEOX Copper

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Wire Diameter	Amps	Volts	Argon (cfh)	Wire Feed (ipm)
.030"	130-150	21-23	25	460-500
.035"	145-185	23-25	30	400-440
.045"	195-215	26-28	30	280-310
1/16"	260-280	27-30	40	150-210

GMAW (TIG) Procedures: (DCSP) 2% Lanthanated Tungsten Electrode Negative or ACHF

Material	Tungsten Dia	Filler Wire Size	Amps (DC)	Amps (AC)	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	70-150	70-150	3/8"-1/2"	15
3/32"	3/32"	3/32"	150-190	150-220	7/16"-1/2"	15
1/8"	3/32"	3/32"	160-200	160-230	7/16"-1/2"	15-20
3/16"	1/8"	3/32"-1/8"	230-400	225-320	7/16"-1/2"	20
1/2"	3/16"	1/8"	325-500	290-485	1/2"	25

* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

DOC-DEOXIDIZED COPPER 30# Spools		UPC #	Part #	U/M	Size
DOC .035 x 30# Spool	One Spool	877511002195	D0C035X30SP	LB	.035
DOC .045 x 30# Spool		877511002201	D0C045X30SP	LB	.045

DOC-DEOXIDIZED COPPER FOR TIG 36"		UPC #	Part #	U/M	Size
DOC 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511002553	D0C116X36T	LB	1/16
DOC 3/32 x 36		877511002560	D0C332X36T	LB	3/32
DOC 1/8 x 36		877511002577	D0C18X36T	LB	1/8

PHOS-BRONZE C ALLOY NO. 521

(Spec/Classification: AWS A5.7 Class ERCuSn-C / ASME SFA 5.7)

Description:

- Weldcote Metals Phos-Bronze C filler metal is used quite extensively for surfacing applications.
- The higher tin (Sn) content (7.0-9.0%) gives "PBC" weld deposits greater hardness and higher tensile / yield strengths than Phos-Bronze A.

Applications:

- "PBC" is commonly used for base metals of similar composition, for joining brass alloys and for joining cast iron to carbon steel.
- Preheating is recommended.

Nominal Composition (%):

	P	Pb	Cu	Sn	Zn	Fe	Others
Result (%)	.03-.35	0.050	balance	7.0-9.0	0.020	0.100	0.500

Physical Properties:

Melting Point	1620°F (882°C)	Liquidus	1880°F (1027°C)
Yield Strength	35,000 Psi	Tensile Strength	66,000 Psi
Elongation	45%	Brinell Hardness	90-100 HB

Recommended Welding Parameters: Phos-Copper C

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Wire Diameter	Amps	Volts	Argon (cfh)	Wire Feed (ipm)
.030"	130-140	25-26	25	340-450
.035"	140-160	26-27	30	280-400
.045"	165-185	27-28	30	200-300
1/16"	285-335	28-30	40	150-210

GMAW (TIG) Procedures: (DCSP) 2% Lanthanated Tungsten Electrode Negative or ACHF

Material	Tungsten Dia	Filler Wire Size	Amps (DC)	Amps (AC)	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	100-120	100-120	3/8"-1/2"	15
3/32"	3/32"	3/32"	185-195	155-190	7/16"-1/2"	15
1/8"	3/32"	3/32"	185-205	165-195	7/16"-1/2"	15-20
3/16"	1/8"	3/32"-1/8"	300-350	255-300	7/16"-1/2"	20
1/2"	3/16"	1/8"	615-640	440-185	1/2"	25

* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

PHB-PHOS BRONZE C 36" Cut Lengths		UPC #	Part #	U/M	Size
PHBC 1/16 x 36	4-10 lb. Tubes in 40 lb. Carton	877511002591	PHBC116X36T	LB	1/16
PHBC 3/32 x 36		877511002607	PHBC332X36T	LB	3/32

SILICON BRONZE ALLOY NO. 656

(Spec/Classification: AWS A5.7 Class ERCuSi-A / ASME SFA 5.7)

Description:

- Weldcote Metals Silicon Bronze is a copper based filler metal containing 3% silicon and small amounts of manganese, tin and zinc.
- Primarily used for MIG, TIG and oxy-acetylene welding of copper, copper-silicon and copper-zinc base metals to themselves and steel.
- Excellent for plain or galvanized steel sheet metal as well as other coated steels.

Applications:

- Weldcote Metals Silicon Bronze is also used for surfacing areas subject to corrosion.
- The oxy-acetylene gas flame should be slightly oxidizing. Keep the weld puddle small in order to promote fast solidification and minimize cracking.
- A high boric acid flux should be used both before and during welding. Preheating is NOT recommended.

Nominal Composition (%):

	Cu	Mn	Pb	Si	Sn	Zn	Fe	Al	Others
Result (%)	Balance	1.500	0.020	2.8-4.0	1.000	1.000	0.500	0.010	0.500

Physical Properties:

Solidus	1780°F (971°C)	Liquidus	1880°F (1027°C)
Tensile Strength	50,000 Psi	Brinell Hardness	80-100 HB (500 kg load)

Recommended Welding Parameters: Silicon Bronze Alloy No. 656

GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray Transfer

Wire Diameter	Amps	Volts	Argon (cfh)	Wire Feed (ipm)
.030"	130-150	21-23	25	460-500
.035"	145-185	23-25	30	400-440
.045"	195-215	26-28	30	280-310
1/16"	260-280	27-30	40	150-210

GMAW (TIG) Procedures: (DCSP) 2% Lanthanated Tungsten Electrode Negative or ACHF

Material	Tungsten Dia	Filler Wire Size	Amps (DC)	Amps (AC)	Gas Cup	Argon (cfh)
1/16"	1/16"	1/16"	70-150	70-150	3/8"-1/2"	15
3/32"	3/32"	3/32"	150-190	140-220	7/16"-1/2"	15
1/8"	3/32"	3/32"	155-200	150-230	7/16"-1/2"	15-20
3/16"	1/8"	3/32"-1/8"	230-400	225-320	7/16"-1/2"	20
1/2"	3/16"	1/8"	325-500	290-485	1/2"	25

SIB- SILICON BRONZE 30# Spool		UPC #	Part #	U/M	Size
SIB .030 x 30# Spool	One Spool	877511002270	SIB030X30SP	LB	.030
SIB .035 x 30# Spool		877511002287	SIB035X30SP	LB	.035
SIB .045 x 30# Spool		877511002294	SIB045X30SP	LB	.045
SIB 1/16 x 30# Spool		877511002300	SIB116X30SP	LB	1/16
SIB- SILICON BRONZE 10# Spool		UPC #	Part #	U/M	Size
SIB .025 x 10# Spool	One Spool	877511002249	SIB025X10SP	LB	.025
SIB .030 x 10# Spool		877511002256	SIB030X10SP	LB	.030
SIB .035 x 10# Spool		877511002263	SIB035X10SP	LB	.035
SIB .045 x 10# Spool		877511004922	SIB045X10SP	LB	.045
SIB- SILICON BRONZE 2# Spool		UPC #	Part #	U/M	Size
SIB .030 x 2# Spool	20-2 lb. Spools per Carton	877511002317	SIB030X2SP	LB	.030
SIB .035 x 2# Spool		877511002324	SIB035X2SP	LB	.035
SIB- SILICON BRONZE 36" Cut Lengths 10# Boxes		UPC #	Part #	U/M	Size
SIB .035 x 36	4-10 lb. Tubes in 40 lb. Carton	877511002621	SIB035X36T	LB	.035
SIB .045 x 36		877511002638	SIB045X36T	LB	.045
SIB 1/16 x 36		877511002645	SIB116X36T	LB	1/16
SIB 3/32 x 36		877511002652	SIB332X36T	LB	3/32
SIB 1/8 x 36		877511002669	SIB18X36T	LB	1/8
SIB 5/32 x 36		877511002676	SIB532X36T	LB	5/32
SIB 3/16 x 36		877511002683	SIB316X36T	LB	3/16
SIB 1/4 x 36	877511002690	SIB14X36T	LB	1/4	

LOW FUMING BRONZE - BARE OR FLUX COATED

(Spec/Classification: AWS A5.8 RBCuZn-C & AWS A5.27 RBCuZn-C)

Description:

- Weldcote Metals Low Fuming Bronze is a general purpose oxy-acetylene brazing rod used for steel, copper alloys, cast iron, nickel alloys and stainless steel.
- A balanced chemical analysis of copper and zinc as well as alloying elements of tin, iron, manganese and silicon produce weld deposits are easily attained simply by applying a neutral or slightly oxidizing flame.

Applications:

- The high silicon content of Weldcote Metals Low Fuming Bronze keeps fumes to a minimum.
- Preheating is required for some applications and bronze brazing flux is required for bare rods. Order as bare or flux-coated.

Nominal Composition (%):

	Cu	Mn	Fe	Si	Al	Pb	Sn	Zn	Others
Result (%)	56.0-60.0	0.01-0.5	0.25-1.2	0.04-0.15	0.010	0.050	0.8-1.1	Balance	0.500

Physical Properties:

Melting Point	1630°F (888°C)
Tensile Strength	65,000 Psi
Brinell Hardness	80-110 HB

LOW FUMING BRONZE Bare 36"		UPC #	Part #	U/M	Size
LFB 1/16 × 36	4-10 lb. Tubes in 40 lb. Carton	877511002331	LFB116X36T	LB	1/16
LFB 3/32 × 36		877511002348	LFB332X36T	LB	3/32
LFB 1/8 × 36		877511002355	LFB18X36T	LB	1/8
LFB 5/32 × 36		877511002362	LFB532X36T	LB	5/32
LFB 3/16 × 36		877511002379	LFB316X36T	LB	3/16
LFB 1/4 × 36		877511002386	LFB14X36T	LB	1/4
LFB 5/16 × 36		877511002393	LFB516X36T	LB	5/16
LFB 3/8 × 36		877511002409	LFB38X36T	LB	3/8

LOW FUMING BRONZE Fluxcoated 36"		UPC #	Part #	U/M	Size
LFB FC 3/32 × 36	4-10 lb. Tubes in 40 lb. Carton	877511002416	LFBFC332X36T	LB	3/32
LFB FC 1/8 × 36		877511002423	LFBFC18X36T	LB	1/8
LFB FC 5/32 × 36		877511002430	LFBFC532X36T	LB	5/32
LFB FC 3/16 × 36		877511002447	LFBFC316X36T	LB	3/16
LFB FC 1/4 × 36		877511002454	LFBFC14X36T	LB	1/4

LOW FUMING BRONZE Fluxcoated 18"		UPC #	Part #	U/M	Size
LFB FC 1/16 × 18	4-10 lb. Boxes in 40 lb. Carton	877511009224	LFBFC116X18T	LB	1/16

NICKEL SILVER - BARE OR FLUX COATED

(Spec/Classification: AWS A5.8 RBCuZn-D & AWS A5.27 RBCuZn-D)

Description:

- Weldcote Metals Nickel Silver filler metal contains 10% nickel and is used primarily for brazing or oxy-acetylene welding of steel or cast iron where good color match is desirable.
- The weld deposits of Weldcote Metals' Nickel Silver have very high tensile strength, good ductility and excellent corrosion resistance.
- The weld deposits are machinable and work hardens when put into service. For this reason, Nickel Silver is commonly used for building up or overlaying worn parts such as gear teeth, bearings and valve seats. It is also used in the matrix of tungsten carbide rods where it acts as a "binder" for the tungsten carbide particles.
- High strength brazing alloy for joining or overlaying with ferrous and nonferrous alloys.

Applications:

- Excellent for tubular structures.
- A boric acid or borax flux is required.
- Preheating may be desired for some applications.
- A neutral or slightly oxidizing flame is recommended.
- Order as bare or flux-coated.

Nominal Composition (%):

	Cu	Zn	Fe	Si	Al	Pb	P	Ni	Others
Result (%)	46.0-50.0	Balance	0.25-1.2	0.04-0.25	0.010	0.050	0.250	9.0-11.0	0.500

Physical Properties:

Melting Point	1715°F (935°C)
Tensile Strength	95,000 Psi
Brinell Hardness	90-110 HB

NICKEL SILVER Bare 36"		UPC #	Part #	U/M	Size
Nickel Silver 1/8 × 36	4-10 lb. Tubes in 40 lb. Carton	877511004595	NS18X36T	LB	1/8
Nickel Silver 1/4 × 36		877511002492	NS14X36T	LB	1/4

NICKEL SILVER Fluxcoated 36"		UPC #	Part #	U/M	Size
Nickel Silver FC 1/8 × 36	4-10 lb. Tubes in 40 lb. Carton	877511002508	NSFC18X36T	LB	1/8
Nickel Silver FC 3/16 × 36		877511002515	NSFC316X36T	LB	3/16

ELECTRODES



Z-PRIME



C-PRIME PLUS



ALU-PRIME

MILD STEEL ELECTRODES

Weldcote Metals' electrodes for mild and low alloy steel welding applications delivering premium weld ability for a wide range of applications while meeting or exceeding AWS specifications.

Mild Steel Electrode Classification:

The American Welding Society's (AWS) classification number series for welding electrodes has been adopted by the welding industry. The electrode identification system for Shielded Metal Arc Welding (SMAW) is as follows:

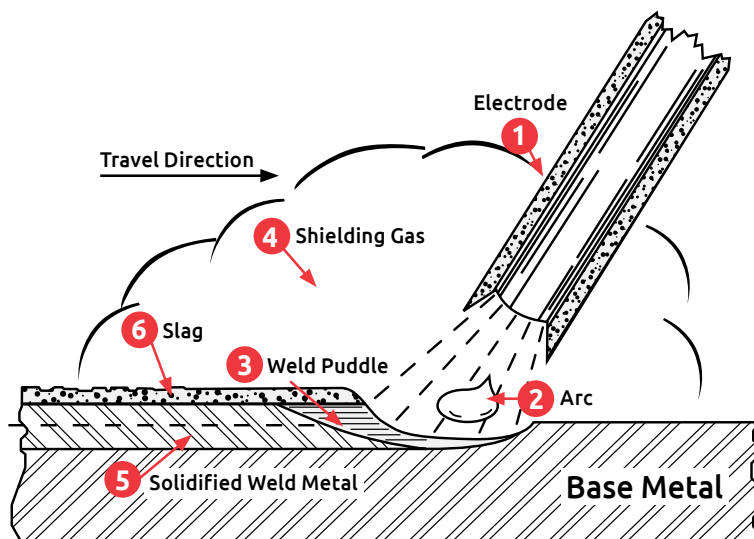
- E indicates electrode for arc welding.
- The first two (or three) digits indicate tensile strength (the resistance of the material to forces trying to pull it apart) in thousands of pounds per square inch of the deposited metal.
- The third (or fourth) digit indicates the position of the weld. 0 indicates the classification is not used. 1 is for all positions; 2 is for flat and horizontal positions only; 3 is for flat position only.
- The fourth (or fifth) digit indicates the type of electrode coating and the type of power supply used: Alternating or direct current, straight or reverse polarity.
- Example: The number E6010 indicates an arc welding electrode with a minimum stress relieved tensile strength of 60,000 psi, can be used in all positions and reverse polarity direct current is required.
- The types of coating, welding current, and polarity position designated by the fourth (or fifth) identifying digit of the electrode classification are listed in the table below.

Fourth (or Fifth) identifying digit

Digit	Coating	Weld Current
0	*	*
1	Cellulose Potassium	AC, DCRP, DCSP
2	Titania Sodium	AC, DCSP
3	Titania Potassium	AC, DCSP, DCRP
4	Iron Powder Titania	AC, DCSP, DCRP
5	Low Hydrogen Sodium	DCRP
6	Low Hydrogen Potassium	AC, DCRP
7	Iron Powder Iron Oxide	AC, DCSP
8	Iron Powder Low Hydrogen	AC, DCRP, DCSP



All Weldcote Metals' 5 & 10 lb. electrodes come vacuum packed to ensure product integrity, quality and no product loss.



E6010 ELECTRODE

(Spec/Classification: AWS A5.1 Class E6010 / ASME SFA 5.1)

Description:

- Weldcote Metals E6010 Electrodes with fast freeze are ideal for pipe welding, overhead and vertical welding positions on carbon steels.
- E6010 electrodes are a high cellulose coated electrode designed to provide a smooth stable arc forceful enough to achieve deep penetration into the base metal.
- This electrode exhibits high deposition efficiency and low spatter loss. It produces a weld puddle that wets and spreads well, yet sets up fast enough to make this electrode ideal for a vertical up or vertical down welding techniques.
- 6010 electrodes produce a flat weld bead with course ripples and a thin easily removable slag.

Applications:

Applications are commonly used for out-of-position welding such as pipe welding, ship yards, water towers, pressure vessels, steel castings, storage tanks, square edge butt welds, greasy, painted or poorly cleaned base metals.

Procedure:

Use a light whipping or weaving motion staying ahead of the puddle. Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	P	S	Ni	Cr	Mo	V
ASW Spec.	0.20 Max	1.20 Max	1.0 Max	N/A	N/A	0.30 Max	0.20 Max	0.30 Max	0.08 Max
Result (%)	0.1	0.5	0.3	0.013	0.012	0.028	0.017	0.034	0.01

Typical Welding Procedures: DCEP

Diameter	Amps (Flat)	Volts
3/32"	60-80	25-30
1/8"	65-130	25-30
5/32"	110-170	25-30
3/16"	140-200	25-30

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	22% min
Yield Strength (psi)	48,000 min
Tensile Strength (psi)	60,000 min
Charpy V-notch at -20°F	20 ft-lbs min

6010 MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
6010 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511007084	6010332E5	LB	3/32
6010 1/8 electrode 5# pkg		877511007077	601018E5	LB	1/8
6010 5/32 electrode 5# pkg		877511007091	6010532E5	LB	5/32
6010 MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
6010 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511003710	6010332E10	LB	3/32
6010 1/8 electrode 10# pkg		877511003727	601018E10	LB	1/8
6010 5/32 electrode 10# pkg		877511003734	6010532E10	LB	5/32



Recommended Grinding Option:
Z-PRIME Flap Disc



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

Description:

- Weldcote Metals E6011 Electrodes have the same characteristics as E6010 electrodes: fast freeze ideal for pipe welding, overhead and vertical welding positions on carbon steels. Unlike 6010, this electrode may be used with small AC welders as well as DC types.
- E6011 electrodes are a high cellulose coated electrode designed to provide a smooth stable arc forceful enough to achieve deep penetration into the base metal. This electrode exhibits high deposition efficiency and low spatter loss.
- E6011 electrodes combine a strong arc force with fast solidification of weld metal thereby permitting vertical or overhead as well as flat and horizontal welding positions.
- E6011 is especially suited for welding where poor groove fit-up and rusty or oily steel is present.

Applications:

Applications are commonly used for out-of-position welding such as pipe welding, ship yards, water towers, pressure vessels, steel castings, storage tanks, square edge butt welds, greasy, painted or poorly cleaned base metals.

Procedure:

Use a light whipping or weaving motion staying ahead of the puddle. Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	P	S	Fe
Result (%)	0.08	0.45	0.18	0.014	0.015	Balance

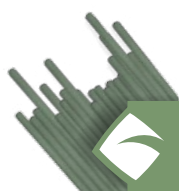
Typical Welding Procedures: ACEP & DCEP

Diameter	Amps (Flat)	Vertical/ Overhead	Volts
3/32"	50-80	40-70	25-30
1/8"	70-110	60-110	25-30
5/32"	110-160	110-160	25-30

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	29.6%
Yield Strength (psi)	Up to 66,100
Tensile Strength (psi)	Up to 72,900

6011 MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
6011 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511007114	6011332E5	LB	3/32
6011 1/8 electrode 5# pkg		877511007107	601118E5	LB	1/8
6011 5/32 electrode 5# pkg		877511007121	6011532E5	LB	5/32
6011 MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
6011 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511003741	6011332E10	LB	3/32
6011 1/8 electrode 10# pkg		877511003758	601118E10	LB	1/8
6011 5/32 electrode 10# pkg		877511003765	6011532E10	LB	5/32



For Patented Low Manganese
E-PRIME-6011 LMn Electrode

See Page 11 >>>

E6013 ELECTRODE

(Spec/Classification: AWS A5.1 Class E6013/ASME SFA 5.1) ABS Approved

Description:

- Weldcote Metals E6013 is a high titanic coated electrode.
- This electrode was primarily designed to provide good wetting and shallow penetration for thin sheet metal applications (using smaller diameter electrodes), but with sufficient penetration for welding medium gauge steel.
- As a result, 6013 electrodes may be used in any position with AC or DC (straight or reverse polarity).

Applications:

Applications are automobile and truck bodies, automotive frames, ornamental iron, metal furniture, farm implementations, machinery guards, storage tanks or wherever appearance is important or desirable.

Procedure:

Use a light whipping or weaving motion staying ahead of the puddle. Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	P	S	Fe
Result (%)	0.08	0.45	0.18	0.012	0.009	Balance

Typical Welding Procedures: AC<±> and DC<±>

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	60-90	50-80
1/8"	100-120	80-110
5/32"	110-160	100-150

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	28% min
Yield Strength (psi)	Up to 59,500
Tensile Strength (psi)	Up to 68,200

6013 MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
6013 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511007145	6013332E5	LB	3/32
6013 1/8 electrode 5# pkg		877511007138	601318E5	LB	1/8
6013 5/32 electrode 5# pkg		877511007152	6013532E5	LB	5/32

6013 MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
6013 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511003772	6013332E10	LB	3/32
6013 1/8 electrode 10# pkg		877511003789	601318E10	LB	1/8
6013 5/32 electrode 10# pkg		877511003796	6013532E10	LB	5/32



Recommended Grinding Option:
Z-PRIME Flap Disc



For Patented Low Manganese
E-PRIME-6013 LMn Electrode

See Page 11 >>>

Description:

- Weldcote Metals E6022 has a smooth, easy to control arc with excellent strike and re-strike characteristics.
- 6022 has low spatter and a light slag. 6022 is designed for deep penetration welding where burn-through spot welding such as roof decking to support beams and similar applications are required.
- 6022 electrodes are typically used in single pass, high speed and welding of groove welds in the flat welding position, lap joints in the horizontal welding position and fillet welds on sheet metal. The weld bead may be more convex and less uniform while welding at higher speeds.

Applications:

Used on moderate to poor or hard to clean steels such as painted, greasy and galvanized or plated steels as well as square edge butt joints. Welding position shall be flat or horizontal. Applications also include sheet metal, light gauge materials and poor or hard to clean steels.

Procedure:

Use short arc or drag technique holding electrode angle to 10-15° from 90° Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	Cu	Mo	S	P	V	Al	Fe
Result (%)	0.200	0.890	0.054	0.010	0.028	0.017	0.003	0.032	0.011	0.003	0.001	Balance

Typical Welding Procedures: AC<±> and DC<±>

Diameter	Amps (Flat)
3/32"	90-120
1/8"	110-150
5/32"	150-180

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	24-26%
Yield Strength (psi)	55,000-63,700
Tensile Strength (psi)	64,000-79,000

6022 MILD STEEL ELECTRODES | 10#

	UPC #	Part #	U/M	Size
6022 1/8 electrode 10# pkg	812922015655	602218E10	LB	1/8
6022 5/32 electrode 10# pkg		6022532E10	LB	5/32

7010-A1 MILD STEEL ELECTRODES | 10#

	UPC #	Part #	U/M	Size
7010-A1 1/8 electrode 10# pkg	812922015686	7010A118E10	LB	1/8

NEW



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

E7014 ELECTRODE

(Spec/Classification: AWS A5.1 Class E7014 / ASME SFA 5.1)

Description:

- Weldcote Metals E7014 is an iron powder, rutile type electrode designed to operate at higher speeds, in all positions with greater deposition efficiency than Weldcote Metals 6012 or 6013 electrodes.
- This electrode provides a stable arc, flat smooth bead appearance and easy slag removability.
- 7014 is used for all position, single pass and multi-layer welding applications.
- AC or DC (straight or reverses polarity) may be used.

Applications:

7014 is an all purpose electrode used wherever the welding efficiency of 6012 or 6013 is not acceptable. Typical applications would include: ship structures, bridges, structural steel for buildings, sheet metal, ornamental iron, auto bodies and fenders, machine parts, storage tanks, etc.

Procedure:

Use a light whipping or weaving motion for vertical up or overhead. Vertical down use higher amperage and faster travel speed staying ahead of the puddle. Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	Cu	Mo	S	P	V	Fe
Result (%)	0.120	0.680	0.330	0.041	0.053	0.012	0.002	0.012	0.021	0.023	Balance

Typical Welding Procedures: AC<±> and DC<±>

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	100-110	80-90
1/8"	130-140	120-130
5/32"	190-200	150-160

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	29.4%
Yield Strength (psi)	Up to 67,700
Tensile Strength (psi)	Up to 79,000

7014 MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
7014 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511007176	7014332E5	LB	3/32
7014 1/8 electrode 5# pkg		877511007169	701418E5	LB	1/8
7014 5/32 electrode 5# pkg		877511007183	7014532E5	LB	5/32

7014 MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
7014 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511003802	7014332E10	LB	3/32
7014 1/8 electrode 10# pkg		877511003819	701418E10	LB	1/8
7014 5/32 electrode 10# pkg		877511003826	7014532E10	LB	5/32



Recommended Grinding Option:
Z-PRIME Flap Disc



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

E7018 / E7018AC / E7024 ELECTRODES

(Spec/Classification: AWS A5.1 Class E7018 / ASME SFA 5.1) ABS Approved

Description:

- Weldcote Metals E7018 is the most efficient general purpose, iron powder-low hydrogen electrode used for welding carbon steels, free-machining steels and low alloy steels with a minimum yield strength of 50,000 psi.
- Weldcote Metals 7018 has a very good deposition rate, providing a quiet steady arc with low spatter and medium penetration. Weld deposits are of X-ray quality and easy slag removal, exceptional mechanical properties and a smooth uniform bead appearance.
- Weldcote Metals 7018 has excellent operator appeal and may be used in any position with AC or DC (reverse polarity).

Applications:

7018 electrodes are used for many ASTM specifications and low hydrogen levels needed to prevent issues like cracking. More specific applications include process piping, cold rolled steels such as found in heavy machinery fabrications, fired and unfired pressure vessels, shop and field welding of bridges and structural steels, case steels, shipbuilding, just about any medium carbon, low alloy steel where the welds are subject to X-ray inspection.

Procedure:

Use the drag technique along the weld joint. A 3° to 5° angle is ideal for vertical up welding and using a slight weaving technique. Please note that procedures may vary with a change in position, base metals, filler metals, equipment and other changes.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	S	P	Fe
Result (%)	0.08	1.00	0.6	0.011	0.021	Balance

Typical Welding Procedures: ACEP and DCEP

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-85	50-80
1/8"	90-130	85-120
5/32"	130-180	110-160

Typical Mechanical Properties:

	AWS Spec
Elongation in 2" (%)	30%
Yield Strength (psi)	81,000
Tensile Strength (psi)	71,000

7018 MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
7018 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511007206	7018332E5	LB	3/32
7018 1/8 electrode 5# pkg		877511007190	701818E5	LB	1/8
7018 5/32 electrode 5# pkg		877511007213	7018532E5	LB	5/32
7018 MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
7018 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511003833	7018332E10	LB	3/32
7018 1/8 electrode 10# pkg		877511003840	701818E10	LB	1/8
7018 5/32 electrode 10# pkg		877511003857	7018532E10	LB	5/32
7018AC MILD STEEL ELECTRODES 5#		UPC #	Part #	U/M	Size
7018AC 3/32 electrode 5# pkg	6-5 lb. Tubes 30 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511008685	7018AC332E5	LB	3/32
7018AC 1/8 electrode 5# pkg		877511008692	7018AC18E5	LB	1/8
7018AC 5/32 electrode 5# pkg		877511008708	7018AC532E5	LB	5/32
7018AC MILD STEEL ELECTRODES 10#		UPC #	Part #	U/M	Size
7018AC 3/32 electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton (Red Plastic Tubes Vacuum Sealed)	877511009200	7018AC332E10	LB	3/32
7018AC 1/8 electrode 10# pkg		877511009194	7018AC18E10	LB	1/8
7018AC 5/32 electrode 10# pkg		877511009217	7018AC532E10	LB	5/32
7024 MILD STEEL ELECTRODES 50# Bulk		UPC #	Part #	U/M	Size
7024 1/8 electrode 50# pkg		812922010711	702418E50	LB	1/8
7024 5/32 electrode 50# pkg		812922010728	7024532E50	LB	5/32



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For Patented Low Manganese
E-PRIME-7018H4R Electrode

WELDING FOR WELL-BEING

THE NEW WELDCOTE METAL LOW MANGANESE LINE

Rutile & Basic Coated Welding Electrodes

THE PROBLEM

As good as manganese is for steel, it is even worse as a health hazard when it evaporates while welding. During the arc welding process, manganese must be transferred from the consumable electrode to the weld metal. Transferring occurs in the liquid state phase. In this state, the vapor pressure of manganese is higher than the vapor pressure of rest elements, therefore it is subject to strong vaporization. This explains the low efficiency of manganese transferring from one solid state in consumable electrode through the liquid phase to another solid state in weld metal. Manganese transferring efficiency is particularly low for rutile-coated electrodes.

This causes high concentrations of evaporated manganese compounds in the work area of the welder and other workers. Prolonged inhalation of manganese compounds is potentially very harmful; it may cause irreversible damage to health. Over the last few decades, international hygienic regulations have been significantly reducing the allowed exposure level to manganese compounds.

THE SOLUTION

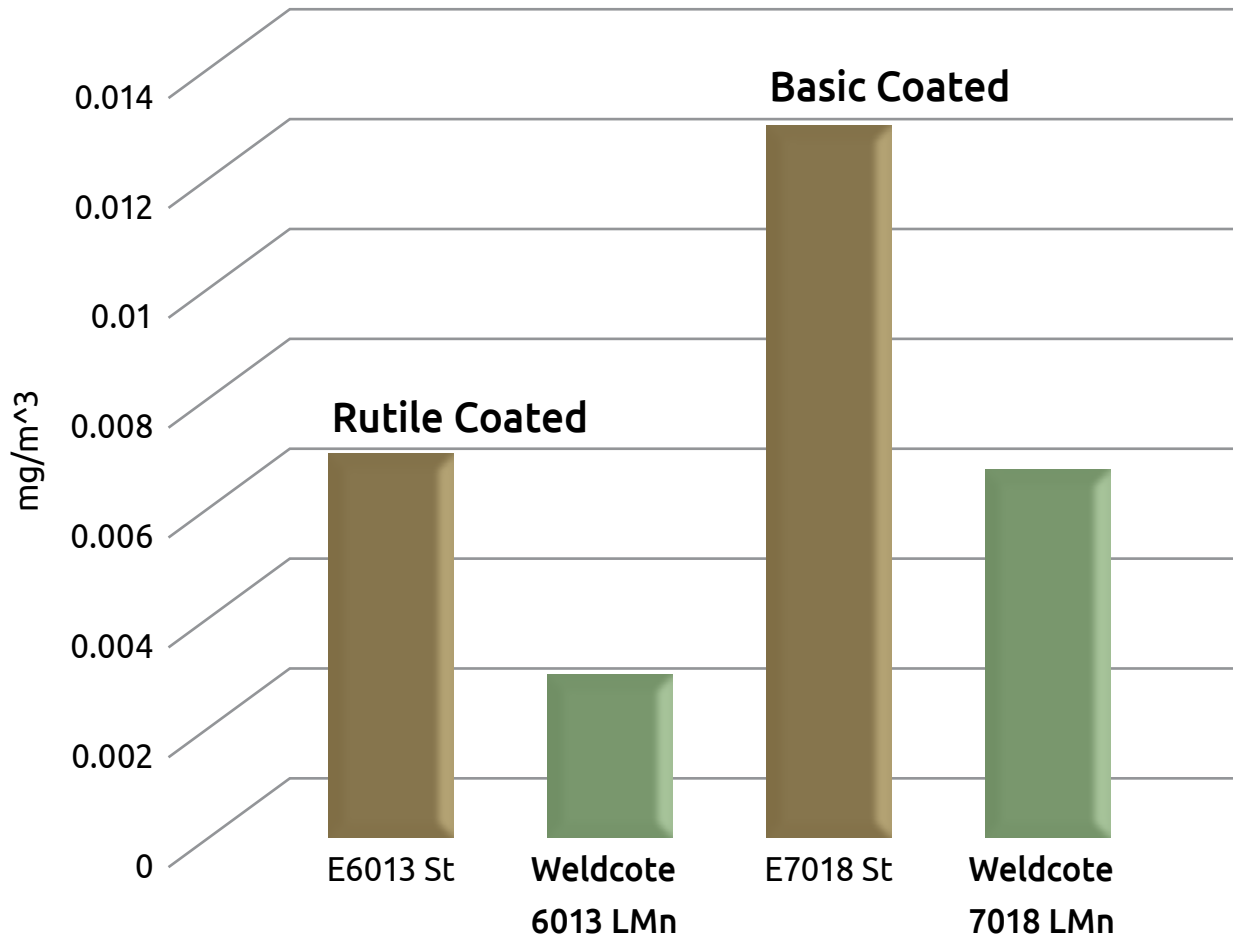
Weldcote Metals partnering with Zika Industries Ltd., a leading global manufacturer of welding electrodes and welding wires, has developed a revolutionary solution to reduce hazardous manganese vapor emissions during welding. The WCM Low Manganese Line rutile and basic coated electrodes have a unique flux composition which supplies weld metal with significantly lowered manganese content and therefore dramatically decreases up to 50 % the manganese emission in welding fume in comparison with regular electrodes.

The special weld metal composition of the WCM Low Manganese Line provides the required mechanical properties and meets requirement of international standards.

THE CHALLENGE

How can we match the mechanical properties of your weld to the parent metal and meet the international hygienic regulations? Because of the high manganese vapor pressure, the only way to reduce its emission during the welding process is to decrease the manganese content in consumable welding electrodes. Reducing the manganese content in the electrodes will reduce manganese content in weld metal. With less manganese content, the main challenge is to meet the requirements of the mechanical properties of the weld metal.

WELDER'S EXPOSURE COMPARISON



* Ideal condition of ventilation, very low exposure of welder to the fume

BE SMART, BE SAFE



US Provisional Application No. 62/612,601

E6011 LMn Low Manganese Emission Cellulosic Coated Electrode

(Spec/Classification: AWS A5.1 / ASME SFA 5.1: E6011 / EN ISO 2560-A: E 42 0 C 3 1)

Description:

Weldcote Metals E6011 LMn is cellulosic coated low manganese emission electrode. It has deep weld penetration for root pass and wide versatility. The slag is readily to remove.

Applications:

Suitable for root pass Welding for pipes and general structure welding.

Coating Type: cellulosic

Welding Current: AC, DC+

Welding Positions: All

Hydrogen Content: <4 ml/100 gr acc. To AWS method

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Ni	Cr	B	P	S	Fe
Result (%)	0.06	0.26	0.15	0.15	0.07	<0.001	<0.025	<0.02	Balance

Typical Welding Procedures:

Diameter	Amps (Flat)	Electrode Length
3/32"	60-90	14"
1/8"	80-120	14"
5/32"	90-150	14"

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	25%	
UTS	76,000 Psi	530 MPa
Yield Strength (psi)	62,000 Psi	430 MPa
Tensile Strength (min)	60	

E6013 LMn Low Manganese Emission Welding Electrode

(Spec/Classification: AWS A5.1 / ASME SFA 5.1: E6013 / EN ISO 2560-A: E 38 0 RR 1 2)

Description:

We are proud to offer our New Low Manganese emission, rutile coated, welding electrode. This electrode was developed with the purpose of significantly reducing of the welders' exposure to hazardous manganese fume emission and to help our end-users meet increasingly demanding environmental regulation. The special weld metal composition of the Z-11-LMn provides the required mechanical properties and meets demands of international standards. The electrode is characterized by stable and smooth arc, easy slag detachability and excellent weld bead appearance.

Applications:

Welding of general low carbon steel.

Coating Type: Rutile

Welding Current: DC+/-, AC~50V

Welding Positions: All, Besides Vertical Down

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Ni	B	P	S	Fe
Result (%)	0.08	0.25	0.22	0.25	<0.001	<0.025	<0.02	Balance

Typical Welding Procedures:

Diameter	Amps (Flat)	Electrode Length
3/32"	60-100	14"
1/8"	80-150	14"
5/32"	140-200	14"

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	>26%	
UTS	69,000 Psi	480 MPa
Yield Strength (psi)	62,000 Psi	430 MPa
Tensile Strength (min)	>70	

E7018 H4R Low Manganese Emission Basic Coated Electrode

(Spec/Classification: AWS A5.1 E7018 H4R / EN ISO 2560-A: E 46 3 B 4 2 H5)

Description:

Basic coated electrode Weldcote Metals E7018 LMn has following features combination: low manganese emission fume, low moisture absorbance and low hydrogen basic coating.

The Weldcote Metals LMn is reliable and high quality welding electrode, particularly suitable for welding of high strength low-alloy steels.

Unique flux composition supplies weld metal with significantly lowered manganese content and therefore dramatically decreases the manganese emission in welding fume. This helps to meet requirements of environment regulation.

Supplied in vacuum pack, moisture absorbance by coating bellow 0.4 wt-% during 9 hours exposure to 80 %RH at 27°C.

Applications:

Welding of general structural steels, fine-grained steels, boilerplates, pipe steels, and shipbuilding plates.

Coating Type: Basic

Welding Current: DC+

Welding Positions: All, Except Vertical Down

Hydrogen Content: <4 ml/100 gr acc. To AWS method

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	B	P	S	Fe
Result (%)	0.06	0.7	0.4	0.15	0.25	<0.001	<0.025	<0.02	Balance

Typical Welding Procedures:

Diameter	Amps (Flat)	Electrode Length
3/32"	60-110	14"
1/8"	90-120	14"
5/32"	120-180	14"

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	27%	
Yield Strength (psi)	75,000 Psi	520 MPa
Tensile Strength (min)	84,500 Psi	580 MPa
Impact Energy @-30C°	136	

6011 LMn | 10# Package

	UPC #	Part #	U/M	Size
6011 LMn 3/32 Electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton	812922016348	6011LM332E10	LB 3/32
6011 LMn 1/8 Electrode 10# pkg		812922016355	6011LM18E10	LB 1/8
6011 LMn 5/32 Electrode 10# pkg		812922016362	6011LM532E10	LB 5/32

6013 LMn | 10# Package

	UPC #	Part #	U/M	Size
6013 LMn 3/32 Electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton	812922016379	6013LM332E10	LB 3/32
6013 LMn 1/8 Electrode 10# pkg		812922016386	6013LM18E10	LB 1/8
6013 LMn 5/32 Electrode 10# pkg		812922016393	6013LM532E10	LB 5/32

7018 H4R | 10# Package

	UPC #	Part #	U/M	Size
7018 H4R LMn 3/32 Electrode 10# pkg	4-10 lb. Tubes 40 lb. Carton	812922016409	7018LM332E10	LB 3/32
7018 H4R LMn 1/8 Electrode 10# pkg		812922016416	7018LM18E10	LB 1/8
7018 H4R LMn 5/32 Electrode 10# pkg		812922016423	7018LM532E10	LB 5/32



308L-16 STAINLESS STEEL

(Spec/Classification: AWS A5.4 / ASME SFA 5.4 E308L-16)

Description:

Weldcote E308L-16 Stainless Steel Electrodes contain extra low carbon for the welding of austenitic, low carbon 18%Cr - 8%Ni stainless steels such as AISI 304-ELC. The weld deposit of this electrode contains a maximum of 0.04% carbon, which greatly reduces the formation of chromium carbides, protecting the corrosion resistant qualities of the base metal and weld. Weldcote308L-16 electrodes have a high deposition rate resulting in excellent efficiency.

Applications:

308L-16 electrodes can be used in all positions. Typical applications include dairy, distillery, restaurant equipment and chemical tanks.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	S	P	Cu	Mo	Fe
Result (%)	0.040	0.5-2.5	0.900	18.0-21.0	9.0-11.0	0.030	0.040	0.750	0.750	Balance

Typical Welding Procedures: DC $\langle \pm \rangle$ V_e

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	40%	
Yield Strength (psi)	55,000 Psi	380 MPa
Tensile Strength (min)	84,500 Psi	580 MPa

308L-16 STAINLESS STEEL ELECTRODES		UPC #	Part #	U/M	Size
308L-16 1/16x10" electrode	4-5 lb. Tubes in 20 lb. Carton	877511003444	308L16116E	LB	1/16
308L-16 3/32x12" electrode	4-10 lb. Tubes 40 lb. Carton	877511003451	308L16332E	LB	3/32
308L-16 1/8x14" electrode		877511003468	308L1618E	LB	1/8
308L-16 5/32x14" electrode		877511003475	308L16532E	LB	5/32
308L-16 3/16x14" electrode		877511003482	308L16316E	LB	3/16



Recommended Grinding Option:
C-PRIME PLUS Flap Disc



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

Description:

Weldcote E309L-16 Stainless Steel electrodes are used for welding 22%Cr-12%Ni stainless steel, mild or carbon steel to stainless steel and stainless clad steel. This electrode will produce an austenitic-ferritic, ductile weld deposit that contains a maximum of 0.04% carbon, thereby providing good crack resistance superior to that of 309 electrodes.

Applications:

Typical applications are similar to those of 309-16, but where stronger, corrosion resistance is required.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	S	P	Fe
Result (%)	0.035	1.580	0.530	23.450	12.600	0.021	0.024	Balance

Typical Welding Procedures: DC \pm V_e

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	36%	
Yield Strength (psi)	58,000 Psi	410 MPa
Tensile Strength (min)	88,500 Psi	555 MPa

309L-16 STAINLESS STEEL ELECTRODES	UPC #	Part #	U/M	Size
309L-16 3/32×12" electrode	877511003536	309L16332E	LB	3/32
309L-16 1/8×14" electrode	877511003543	309L1618E	LB	1/8
309L-16 5/32×14" electrode	877511003550	309L16532E	LB	5/32
309L-16 3/16×14" electrode	877511003567	309L16316E	LB	3/16

4-10 lb. Tubes
40 lb. Carton

310-16 STAINLESS STEEL

(Spec/Classification: AWS A5.4 / ASME SFA 5.4 E310-16)

Description:

Weldcote E310-16 Stainless Steel Electrodes are considered a general purpose electrode used mainly for welding AISI 310 stainless steel but also for straight chromium stainless as well as almost any analysis of carbon and alloy steel. The weld deposit of this electrode will have an austenitic structure with a chemical analysis and oxidation resistance similar to that of the base plate. Weldcote 310-16 provides easy slag removability and a flat regular bead with fine appearance.

Applications:

More common applications include 25%Cr-20%Ni stainless steel, Cr-Mo stainless steel to mild steel and the clad side of 18%Cr-8%Ni stainless clad steel. This electrode can be used in all positions.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	S	P	Fe
Result (%)	0.110	1.900	0.520	26.200	20.950	0.012	0.016	Balance

Typical Welding Procedures: DC \pm Ve

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	34%	
Yield Strength (psi)	61,500 Psi	425 MPa
Tensile Strength (min)	90,500 Psi	625 MPa

310-16 STAINLESS STEEL ELECTRODES	UPC #	Part #	U/M	Size
310-16 3/32x12" electrode	4-10 lb. Tubes 40 lb. Carton	877511003574	31016332E	LB 3/32
310-16 1/8x14" electrode		877511003581	3101618E	LB 1/8
310-16 5/32x14" electrode		877511003598	31016532E	LB 5/32
310-16 3/16x14" electrode		877511003604	31016316E	LB 3/16

312-16 STAINLESS STEEL

(Spec/Classification: AWS A5.4 / ASME SFA 5.4 E312-16)

Description:

Weldcote E312-16 Stainless Steel electrodes produce a weld deposit (as welded) with the highest tensile and yield strength of any stainless steel electrode. 312-16 is one of the most widely used stainless steel electrodes for arc welding. It is used to weld dissimilar steels, abrasion resistant steels, high yield steels and for joining high temperature alloys to carbon or low alloy steels

Applications:

Weldcote 312-16 electrodes produce ductile, crack resistant, porosity-free, weld deposits with greater root penetration and better slag control in tight places. 312-16 is also used for Mn steels, hardening steels, armor steels, spring steels and as a wear resistant build-up and buffer layer for hardfacing. This electrode may be used in all positions.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	S	P	Fe
Result (%)	0.12	1.80	0.560	29.30	9.400	0.021	0.022	Balance

Typical Welding Procedures: DC \pm Ve

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	23%	
Yield Strength (psi)	78,000 Psi	540 MPa
Tensile Strength (min)	109,000 Psi	750 MPa

312-16 STAINLESS STEEL ELECTRODES	UPC #	Part #	U/M	Size
312-16 3/32x12" electrode	4-10 lb. Tubes 40 lb. Carton	877511003611	31216332E	LB 3/32
312-16 1/8x14" electrode		877511003628	3121618E	LB 1/8
312-16 5/32x14" electrode		877511003635	31216532E	LB 5/32

Description:

Weldcote E316L-16 Stainless Steel electrodes produce weld deposits similar to that of 316-16, but with a maximum of 0.04% carbon. This extra low carbon content gives the weld deposit excellent resistance against intergranular corrosion caused by carbide precipitation. Weldcote 316L electrodes are used for welding 18%Cr-12%Ni-2.5%Mo stainless steels where the corrosion resistance qualities of AISI 316L are required.

Applications:

This electrode has a high deposition rate and produces a weld deposit with fine bead appearance and exceptional crack resistance.

316L-16 electrodes are most commonly used in the textile, paper, cellulose and chemical equipment industries for the fabrication of 316L, 318 and 319L stainless steel products.

Typical Weld Metal Chemistry (%):

	C	Mn	Si	Cr	Ni	S	P	Mo	Fe
Result (%)	0.035	1.75	0.520	18.70	12.65	0.022	0.024	2.30	Balance

Typical Welding Procedures: DC \pm V_e

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	36%	
Yield Strength (psi)	58,000 Psi	400 MPa
Tensile Strength (min)	85,500 Psi	590 MPa

316L-16		UPC #	Part #	U/M	Size
316L-16 1/16x10" electrode	4-5 lb. Tubes in 20 lb. Carton	877511003666	316L16116E	LB	1/16
316L-16 3/32x12" electrode	4-10 lb. Tubes 40 lb. Carton	877511003673	316L16332E	LB	3/32
316L-16 1/8x14" electrode		877511003680	316L1618E	LB	1/8
316L-16 5/32x14" electrode		877511003697	316L16532E	LB	5/32
316L-16 3/16x14" electrode		877511003703	316L16316E	LB	3/16



Recommended Grinding Option:
C-PRIME PLUS Flap Disc



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

NICKEL 55 (NI-55)

(Spec/Classification: AWS/SFA 5.15 Class ENiFeCl)

Description:

Weldcote Metals NI-55 electrodes are used for welding of cast irons to themselves as well as for joining cast irons to mild steels. NI-55 is also employed for the repair of castings. The welds are moderately hard and require carbide tipped tools for machining. A preheat and interpass temperature of not less than 350°F (175°C) is required during welding. Nickel 55 has a lower nickel content than Nickel 99 electrodes (nominally 55%). Weld deposits are usually machinable, but under conditions of high admixture, the welds can become hard and difficult to machine. Nickel 55 welds are stronger, more ductile and more tolerant of phosphorus in the casting. It also has a lower coefficient of expansion than Nickel 99 resulting in fewer fusion line cracks.

Applications:

Nickel 55 is usually used to repair castings with heavy or thick sections such as motor blocks, housings, machine parts, frames, defective castings and building up worn sections.

Procedure:

AC or DC (DC+), all position. A preheat and inter pass temperature of no less than 350°F (175°C) is required during welding. Lightly peen between passes and use a skip or back-step welding technique. Allow casting to cool slowly.

Welding Parameters:

Direct Current
Electrode + Ve

Nominal Composition (%):

	C	Mn	Si	Fe	Cu	Ni	S	P
Result (%)	0.900	0.740	2.090	40.200	1.900	54.500	0.006	0.012



Typical Welding Procedures: DC \pm Ve

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	8%	
Yield Strength (psi)	59,500 Psi	410 MPa
Tensile Strength (min)	84,000 Psi	580 MPa

NICKEL ELECTRODES 55 (AWS Class ENiFeCl)	UPC #	Part #	U/M	Size
Ni 55 3/32 electrode	877511003864	NI55332E	LB	3/32
Ni 55 1/8 electrode	877511003871	NI5518E	LB	1/8
Ni 55 5/32 electrode	877511003888	NI55532E	LB	5/32
Ni 55 3/16 electrode	877511003895	NI55316E	LB	3/16

NICKEL ELECTRODES 112 (ENiCrMo-3)	UPC #	Part #	U/M	Size
Nickel 112 3/32 x 12" Electrode	877511008913	NI112332E	LB	0.035
Nickel 112 1/8 x 14" Electrode	877511008906	NI11218E	LB	0.035
Nickel 112 5/32 x 14" Electrode	812922015501	NI112532E	LB	0.045



Recommended Grinding Option:
C-PRIME PLUS & Z-PRIME Flap Disc



Recommended Tungsten Electrode:
2% LANTHANATED (BLUE) EWL a-2

Description:

Weldcote Metals NI-99 electrodes are designed for welding of gray iron castings to themselves as well as joining them to mild steels or stainless steels.

It is also used extensively to repair castings.

The welds are quite machinable.

A preheat and interpass temperature of not less than 350°F (175°C) is recommended during welding.

Nickel 99 is a nominally 99% nickel electrode. Nickel 99 deposit welds are machinable, which is an important criterion when the casting is to be machined after welding.

Repairs with Nickel 99 are often single pass welding with high admixture. Even with high admixture, the weld deposit will remain machinable.

Applications:

Nickel 99 works best on castings with low or medium phosphorus contents such as thin plates, machinery parts, frames and housings.

Procedure:

AC or DC reverse or straight polarity. Must have clean weld area.

Bevel breaks and cracks deep enough so the first pass ties in the bottom of the crack. In most cases, preheating is not necessary, but heavy sections should be preheated to approximately 400°F.

Use a short arc and stringer beads are recommended. Skip or back-step weld and peen to relieve stresses.

Allow the casting to cool slowly.

Welding Parameters:

Direct Current

Electrode + Ve

Nominal Composition (%):

	C	Mn	Si	Fe	Cu	Ni	S	P
Result (%)	0.850	0.250	1.730	4.200	1.500	91.500	0.005	0.015

Typical Welding Procedures: DC <±> Ve

Diameter	Amps (Flat)	Vertical/Overhead
3/32"	65-75	(For vertical welding, amperages are to reduced by 10-15 amps)
1/8"	90-105	
5/32"	120-135	
3/16"	135-155	

Typical Mechanical Properties:

	AWS Spec	
Elongation in 2" (%)	5%	
Yield Strength (psi)	72,000 Psi	500 MPa
Tensile Strength (min)	56,500 Psi	390 MPa

NICKEL ELECTRODES 99 (AWS Class ENi)	UPC #	Part #	U/M	Size	
Ni 99 3/32 electrode	4-10 lb. Tubes 40 lb. Carton	877511003901	NI99332E	LB	3/32
Ni 99 1/8 electrode		877511003918	NI9918E	LB	1/8
Ni 99 5/32 electrode		877511003925	NI99532E	LB	5/32
Ni 99 3/16 electrode		877511003932	NI99316E	LB	3/16

NICKEL ELECTRODES 190 (ENiCu-7) (CMO-7)	UPC #	Part #	U/M	Size	
Nickel 190 3/32×12" electrode	6-10 lb. Tubes 60 lb. Carton	812922012265	NI190332E	LB	0.035
Nickel 190 1/8×14" electrode		812922015570	NI19018E	LB	0.035
Nickel 190 5/32×14" electrode		812922015587	NI190532E	LB	0.045

WELDCOTE CHAMFER ARC

Gouging, Veeing, Scarfing and Removal of Metals

Description:

- Chamfer Arc Electrodes are used for gouging and cleaning of faulty welds of metals like cast iron, stainless steels, and aluminum for which the oxy-acetylene method is not applicable.
- Chamfer Arc is a heavily coated special gouging electrode which is very easy to use.
- Metal working electrode used for veeing, gouging, scarfing, and removing metals with basic welding equipment.

Applications:

Gouging and chamfering of ferrous and non-ferrous metals. Chamfer Arc electrodes are ideal for removing unwanted or defective weld metal, preparing parts prior to welding, removing risers and reducing large areas of metal prior to machining.
Also used when oxy-acetylene is not applicable.

Amperages:

Diameter	1/8"	5/32"	3/16"
Amps (Flat)	210-350	250-400	300-500

Procedure:

AC or DC straight polarity. For arc start, hold electrode perpendicular and then leaned 15° and pulled forward.

Chamfer Arc electrodes should not be pushed into the work more than half the coating thickness.

If the groove is not deep enough, the process should be repeated after the work piece has cooled.

WELDCOTE CHAMFER ARC		UPC #	Part #	U/M	Size
Chamfer Arc 1/8 electrode	1-5 Bags in 5 lb. Tubes	877511006766	CHAMFERARC18E	LB	1/8
Chamfer Arc 5/32 electrode		877511006773	CHAMFERARC532E	LB	5/32

WELDCOTE CUT ROD

High Speed Cutting, Trimming, Piercing and Removing Metals with Welding

Description:

- Cut Rod is a special cutting electrode with a heavy coating. Arc start and welding are easy with this electrode and it can be used with high currents.
- Cut Rod should be positioned perpendicular to the work and used in cutting and gouging of metals like cast iron, aluminum, and stainless steels.
- Metal working for cutting, trimming, piercing and removing metals with ease and control with basic welding.

Applications:

This electrode is frequently used for removing rivets and bolts, enlarging openings, trimming metals, etc.

Amperages:

Diameter	1/8"	5/32"	3/16"
Amps (Flat)	140-350	175-400	225-450

Procedure:

AC or DC straight (electrode -) For the fastest and cleanest cuts, use DC straight polarity (electrode -). When piercing, hold electrode vertical to work, strike arc, and push in and out until hole has been formed.

When cutting sheets or plates, start at the edge, strike arc, and use electrode like a saw; push and pull with the electrode at a 45° angle to the work piece.

In all cases the arc must be kept as short as possible.

WELDCOTE CUT ROD		UPC #	Part #	U/M	Size
Cut Rod 1/8 electrode	3-8 lb. Tubes 24 lb. Carton	877511006735	CUTROD18E	LB	1/8
Cut Rod 5/32 electrode		877511006742	CUTROD532E	LB	5/32



Recommended Grinding Option:
C-PRIME PLUS & Z-PRIME Flap Disc

Description:

- Arc Gouging Carbon Electrodes are copper clad and designed specifically for the air carbon arc process.
- They are a flexible, efficient and cost effective way for metal removal on practically any metal: carbon steel, other ferrous alloys, cast iron, aluminum, nickel, copper alloys and other nonferrous metals.

Amperages:

Diameter	5/32"	3/16"	1/4"	5/16"	3/8"
Amps (Flat)	90-150	200-250	300-400	350-450	250-450

Applications:

Metal removal on practically any metal; creating "U" grooves for weld joints, gouging out cracks, removing hard surface materials, removing old welds and many other applications.

Procedure:

AC or DC. The electrode should extend at most 7" from the gouging torch with the air jet between the electrode and work piece. Rod angle to work is 35° to 45°. Always use the push technique. The depth and contour of the groove produced are controlled by the electrode diameter and travel speed. Groove depths greater than 1-1/2 times the diameter must be in multiple passes. The width of the groove is determined by the electrode diameter used and is usually 1/8" wider than the diameter. Consult carbon arc torch manual for air pressure settings.

WELDCOTE ARC GOUGING CARBON		UPC #	Part #	U/M	Size
Gouging carbons 5/32 x 12	100 pcs. per box 500 pcs. per case 2000 pcs master	877511004014	GCARBONS532X12	PC	5/32 x 12" (4.0mm x 305mm)
Gouging carbons 3/16 x 12	50 pcs. per box 250 pcs. per case 1000 pcs master	877511004021	GCARBONS316X12	PC	3/16 x 12" (4.8mm x 305mm)
Gouging carbons 1/4 x 12		877511004038	GCARBONS14X12	PC	1/4 x 12" (6.4mm x 305mm)
Gouging carbons 5/16 x 12		877511004045	GCARBONS516X12	PC	5/16 x 12" (7.9mm x 305mm)
Gouging carbons 3/8 x 12		877511004052	GCARBONS38X12	PC	3/8 x 12" (9.5mm x 305mm)

SUPER 120 ELECTRODE

Dissimilar Metal Combinations - 120,000 Psi Tensile

Description:

- Super 120 Electrodes are excellent for repairing tools, dies, spring steel and any dissimilar metal combinations, except for aluminum and copper alloys due to exceptional strength and crack resistance.
- Super 120 is also recommended for repairing worn parts and as an underlay for hard-facing.
- AKA Stud removal rod - excellent strength and superior ductility and crack resistance on many grades of steels and stainless as well as dissimilar alloys.

Amperages:

Diameter	3/32"	1/8"	5/32"	3/16"
Amps (Flat)	35-70	60-110	75-140	130-200

Applications:

Repairing tools, dies, spring steel and any dissimilar metal combinations.

Consider this the maintenance and repair "stand-by" in every industry throughout the world.

base metals, filler metals, equipment and other changes.

Procedure:

Use either AC or DC reverse polarity (electrode +). The weld area should be free of rust, grease, paint and other materials which cause weld contamination. A 90° vee joint should be used when joining heavy sections. Maintain a short arc length and use stringer beads.

For high carbon steels, a preheat of 400° is recommended. Weld positions are flat, horizontal, vertical up and overhead.

SUPER 120		UPC #	Part #	U/M	Size
Super 120 3/32 electrode	4-10 lb. Tubes 40 lb. Carton	877511004793	SUPER120332E	LB	3/32
Super 120 1/8 electrode		877511004809	SUPER12018E	LB	1/8
Super 120 5/32 electrode		877511004816	SUPER120532E	LB	5/32

ALUMINUM SMOOTH 340

Aluminum Cast & Wrought Base Metal

Description:

- Aluminum Smooth 340 Maintenance and Repair electrodes feature a precise combination of core wire and coating, providing high speed deposition of dense, machinable welds. It is recommended for fabrication and repair of cast and wrought aluminum.
- It is excellent for foundry defects, machining errors and all types of salvage work.
- Coated stick rod for fabrication, maintenance of repairs of cast or wrought aluminum base metals

Amperages:

Diameter	3/32"	1/8"	5/32"
Amps (Flat)	50-85	80-135	100-165

Applications:

It is widely used on sheets, tubes and extrusions in thickness of 1/8" or more. Smooth 340 is also well-suited to torch applications such as aluminum motor blocks and cylinder heads, machine bases and supports, housings and mounts.

Procedure:

Use DC reverse polarity. Weld areas should be clean and heavier sections should be beveled. Best results will be obtained on heavier sections when preheated to 500°F. The electrode should be held in a vertical position. Slag needs to be removed before multiple passes. Clean with hot water; add 10% sulfuric acid to water if additional cleaning is required.

ALUMINUM SMOOTH 340		UPC #	Part #	U/M	Size
Aluminum Smooth 340 3/32 electrode	1-5 Bags in 5 lb. Tubes	877511004762	ALSMOOTH340332E	LB	3/32
Aluminum Smooth 340 1/8 electrode		877511004779	ALSMOOTH34018E	LB	1/8
Aluminum Smooth 340 5/32 electrode		877511004786	ALSMOOTH340532E	LB	5/32

WELDCOTE 2300 ELECTRODE

Multi-Purpose Phosphor Bronze Electrodes

Description:

- Weldcote 2300 Phosphor Bronze Electrodes are a versatile, copper based alloy that joins copper, brass and dissimilar metals.
- Weldcote 2300 is used for buildup, joining and repairs of many surfaces needing a frictional resistance of buildup finish.
- When used as an overlay, it offers excellent resistance to frictional wear.
- Copper base stick electrode used for joining and repairs of many wear surface needing a frictional resistance or buildup finish.

Amperages:

Diameter	1/8"
Amps (Flat)	60-120

Applications:

It is typically used for the repair of bushings, gears, propellers, impeller blades, couplings and numerous other applications.

Procedure:

Use either AC or DC reverse polarity. Clean weld area. Copper and heavy sections of cast iron must be preheated. Preheat of phosphor bronze castings should be approximately 400°F and copper should be preheated to approximately 750°F. Preheat must be maintained while welding. Use lowest current for sound weaving technique. Once the weld is cooled, slag may be removed by chipping and brushing.

WELDCOTE 2300		UPC #	Part #	U/M	Size
Weldcote 2300 1/8 electrode	4-10 lb. Tubes 40 lb. Carton	877511009422	230018E10	LB	1/8



Recommended Grinding Option:
ALU-PRIME Flap Disc



WELDCOTE ABRASIVES CATALOG

Available Online: weldcotemetals.com

Can be Ordered via Part #: 199903

PRODUCT CATALOG
www.weldcotemetals.com

TUNGSTEN ELECTRODE GUIDE

ISO 6848 Color Chart	10 Piece			3 Piece		U/M	Size
	Size	UPC #	Part #	UPC #	Part #		
RED	.040" x 7"	877511004359	TUNG040X7X2TH			PK	.040
2% Lanthanated AWS A5.12 EWTh-2 ISO 6848 WT20	1/16" x 7"	877511004366	TUNG116X7X2TH	812922013460	TUNG116X7X2TH3	PK	1/16
	3/32" x 7"	877511004373	TUNG332X7X2TH	812922013477	TUNG332X7X2TH3	PK	3/32
	1/8" x 7"	877511004380	TUNG18X7X2TH	812922013484	TUNG18X7X2TH3	PK	1/8
	5/32" x 7" NEW	877511005660	TUNG532X7X2TH			PK	5/32
	3/16" x 7" NEW	812922010537	TUNG316X7X2TH			PK	3/16
TURQUOISE	1/16" x 7"	812922013330	TUNG116X7RE			PK	1/16
Rare Earth AWS A5.12 EWG ISO 6848	3/32" x 7"	812922013323	TUNG332X7RE			PK	3/32
	1/8" x 7"	812922013330	TUNG18X7RE			PK	1/8
GREEN	1/16" x 7"	877511004403	TUNG116X7PURE			PK	1/16
Pure Green AWS A5.12 EWP ISO6848WP	3/32" x 7"	877511004410	TUNG332X7PURE	812922013385	TUNG332X7PURE3	PK	3/32
	1/8" x 7"	877511004427	TUNG18X7PURE	812922013392	TUNG18X7PURE3	PK	1/8
	5/32" x 7" NEW	877511005653	TUNG532X7PURE			PK	5/32
GOLD	1/16" x 7"	877511004632	TUNG116X7LAN15			PK	1/16
1.5% Lanthanated AWS A5.12 EWL-1.5 ISO 6848 WL15	3/32" x 7"	877511004649	TUNG332X7LAN15			PK	3/32
	1/8" x 7"	877511004656	TUNG18X7LAN15			PK	1/8
BLUE	1/16" x 7"	812922016058	TUNG116X7LAN2			PK	1/16
2% Lanthanated AWS A5.12 EWL-2 ISO 6848 WL2	3/32" x 7"	812922016065	TUNG332X7LAN2	812922012425	TUNG332X7LAN23	PK	3/32
	1/8" x 7"	812922016072	TUNG18X7LAN2	812922012432	TUNG18X7LAN23	PK	1/8
GRAY	1/16" x 7"	877511005691	TUNG116X7X2CER			PK	1/16
2% Ceriated AWS A5.12 EWCe-2 ISO 6848 WC20	3/32" x 7"	877511005707	TUNG332X7X2CER	812922015259	TUNG332X7X2CER3	PK	3/32
	1/8" x 7"	877511005714	TUNG18X7X2CER			PK	1/8
	5/32" x 7" NEW	877511005677	TUNG532X7X2CER			PK	5/32
BROWN	3/32" x 7"	812922015792	TUNG332X7EWZR1			PK	3/32
3% Zirconiated AWS A5.12 EWZr-1 ISO 6848 WZ3	1/8" x 7"	812922015808	TUNG18X7EWZR1			PK	1/8
8% Zirconiated AWS A5.12 EWZr-8	3/32" x 7" NEW	812922015761	TUNG332X7EWZR8			PK	3/32
	1/8" x 7" NEW	812922015778	TUNG18X7EWZR8			PK	1/8



2% Lanthanated (RED) EWTh-2 (principle oxide: 1.7-2.2% Thorium oxide)

Overall, best all purpose tungsten electrode. Best for use in Direct Current (D/C) applications using transformer based constant current power sources. Good D/C arc starts and stability, medium erosion rate, medium amperage range, medium tendency to spit. Best for use on non corroding steels, titanium alloys, nickel alloys, copper alloys. For aluminum, electrically point tungsten by D/C Reverse Polarity.



Rare Earth (Turquoise) EWG (principle oxides: 1.5% Lanthanum, 0.08% Zirconium, 0.08% Yttrium oxides)

Best for automated or robotic applications in Alternating Current (A/C) or Direct Current (D/C) due to low voltage tolerance (changes in tip to work piece distance) using inverter or transformer based constant current power sources. Very stable tip geometry runs cooler than 2% Lanthanated with longer life, low to medium amperage range. Best low amp starts. Good for low alloyed steels, non corroding steels, aluminum alloys, magnesium alloys, titanium alloys, nickel alloys, copper alloys.



PURE (GREEN) EWP/WP (principle oxide: None)

Good for use in Alternation Current (A/C) for aluminum alloys and magnesium alloys in low to medium amperage applications using transformer based constant current power sources only. Balls easy, tends to spit at higher amperages.



1.5% LANTHANATED (GOLD) EWL-15 (principle oxide: 1.3-1.7% Lanthanum oxide)

Best for use in Direct Current (D/C) as an alternative to 2% Lanthanated using inverter or transformer based constant current power sources. Best D/C arc starts and stability, low erosion rate, wide amperage range, no spitting. Best for non corroding steels, titanium alloys, nickel alloys, copper alloys.



2% LANTHANATED (BLUE) EWL-2 (principle oxide: 1.8-2.2% Lanthanum oxide)

Good for use in both Alternating Current (A/C) or Direct Current (D/C) applications using inverter or transformer based constant current power sources. Excellent arc starting, low burn off rate, good arc stability (even at lower voltages), excellent re-ignition and extends higher operating current range. Ideal for steel, stainless steels, low alloyed steels, aluminum alloys, magnesium alloys, titanium alloys, copper alloys and nickel alloys.



2% CERATED (GRAY) EWCE-2 (principle oxide: 1.8-2.2% Cerium Oxide)

Best for use in Alternating Current (A/C) or Direct Current (D/C) applications using inverter or transformer based constant current power sources. Good ignition and re-ignition properties, long service life, excellent arc stability. Low erosion rate, best at low amperage range, no spitting, good D/C arc starts and stability. Good for low-alloyed steels, non corroding steels aluminum alloys, magnesium alloys, titanium alloys nickel alloys, copper alloys.



0.3% Zirconiated (BROWN) EWZr-1 (principle oxide: 0.3% Zirconium oxide)

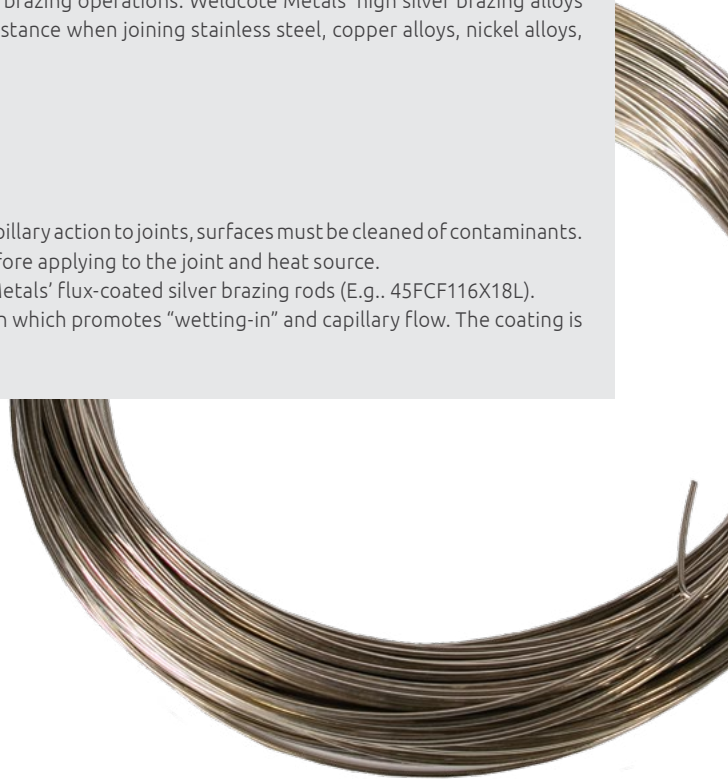
Best for Alternating Current (A/C) for aluminum alloys and magnesium alloys using inverter or transformer based constant current power sources. Retains balled tip during welding and has a high resistance to contamination. Better arc starts, stability and less spitting than pure.

High Silver Alloys:

Weldcote Metals offers approximately 10 different high silver brazing alloys for joining most ferrous and nonferrous metals (excluding aluminum and magnesium). Weldcote high silver alloys are manufactured to the highest quality standards and from only the highest purity raw materials, eliminating undesirable trace elements that can interfere with brazing operations. Weldcote Metals' high silver brazing alloys are meticulously formulated to provide maximum strength and corrosion resistance when joining stainless steel, copper alloys, nickel alloys, precious metals and any combination of these metals.

Bare or Flux-Coated:

In brazing applications, capillary action is of primary importance. To promote capillary action to joints, surfaces must be cleaned of contaminants. In most cases, this is done by dipping the filler metal into a jar of paste flux before applying to the joint and heat source. In many cases the use of paste flux can be avoided by using one of Weldcote Metals' flux-coated silver brazing rods (E.g., 45FCF116X18L). The extruded coating on these filler metals provides excellent cleansing action which promotes "wetting-in" and capillary flow. The coating is flexible, low-fuming and has a long shelf life.



WELDCOTE 35CF BRAZING ALLOY

(Spec/Classification: AWS A5.8 Bag-35 / ASME SFA5.8 Bag-35)

Description:

Weldcote 35CF is a cadmium free silver brazing alloy with a moderate melting range and frequently used in production brazing operations. Weldcote 35CF is commonly used to join any combinations of copper, brass, steel and bronze.

Nominal Composition (%):

	Ag	Cu	Zn	Others
Result (%)	34.0-36.0	31.0-33.0	31.0-35.0	0.15

Physical Data:

Solidus	1265°F (685°C)
Liquidus	1390°F (754°C)
Brazing Range	1390-1545°F (754-871°C)
Color	Yellow-Gold
Specific Gravity	9.03
Density (troy oz./cu.in.)	4.90
Electrical Conductivity (% of IACS)	19.5
Electrical Resistivity (Microhm-cm)	8.18

Available Sizes: Troy Ounce Coils of 1/16" and 3/32"

35% Bag-35		UPC #	Part #	U/M	Size
Weldcote "35CF" 1/16" x 50 troy oz coil	One Coil	877511005011	35CF116X50TOC	T/O	1/16
Weldcote "35CF" 1/16" x 3 troy oz coil		877511005042	35CF116X5T0C	EA	1/16

WELDCOTE 45CF BRAZING ALLOY

(Spec/Classification: AWS A5.8 Bag-45 / ASME SFA5.8 Bag-45)

Description:

Weldcote 45CF is a general purpose cadmium free silver brazing alloy with a wide melting range and widely used on many brazing operations. Weldcote 45CF is commonly used to join any combinations of copper, brass, steel and bronze.

Nominal Composition (%):

	Ag	Cu	Zn	Others
Result (%)	44.0-46.0	29.0-31.0	23.0-27.0	0.15

Physical Data:

Solidus	1225°F (663°C)
Liquidus	1370°F (743°C)
Brazing Range	1370-1550°F (743-843°C)
Color	Yellow White to Light Gold
Specific Gravity	9.11
Density (troy oz./cu.in.)	4.80
Electrical Conductivity (% of IACS)	19.0
Electrical Resistivity (Microhm-cm)	9.08

Available Sizes: Troy Ounce Coils of 1/32", 3/64", 1/16" & 3/32" Rods of 1/16" & 3/32"

45% Bag-5		UPC #	Part #	U/M	Size
Weldcote "45CF" 1/32" × 1 troy oz coil	One Coil	877511006926	45CF132X1T0C	EA	1/32
Weldcote "45CF" 1/32" × 3 troy oz coil		812922010681	45CF132X3T0C	EA	1/32
Weldcote "45CF" 1/32" × 5 troy oz coil		877511008012	45CF132X5T0C	EA	1/32
Weldcote "45CF" 1/16" × 50 troy oz coil	One Coil	877511005141	45CF116X50T0C	T/O	1/16
Weldcote "45CF" 1/16" × 1 troy oz coil		877511005158	45CF116X1T0C	EA	1/16
Weldcote "45CF" 1/16" × 3 troy oz coil		877511005165	45CF116X3T0C	EA	1/16
Weldcote "45CF" 1/16" × 5 troy oz coil	One Tube	877511005172	45CF116X5T0C	EA	1/16
Weldcote "45CF" 1/16" × 18" length 15 t/o		877511005189	45CF116X18L15T0	T/O	1/16
Weldcote "45CF" 3/32" × 1 troy oz coil		877511005219	45CF332X1T0C	EA	3/32
Weldcote "45CF" 3/32" × 3 troy oz coil	One Coil	877511005226	45CF332X3T0C	EA	3/32
Weldcote "45CF" 3/32" × 5 troy oz coil		877511005233	45CF332X5T0C	EA	3/32
Weldcote "45CF" 3/32" × 18" length 15 t/o		877511005240	45CF332X18L15T0	T/O	3/32
Weldcote "45CF" 3/32" × 36" length 50 t/o	One Carton	877511008258	45CF332X36L50T0	T/O	3/32
Weldcote "45CF" 1/8" × 50 troy oz coil	One Coil	877511007299	45CF18X50T0C	T/O	1/8

45% Bag-5 Flux-Coated		UPC #	Part #	U/M	Size
Weldcote "45CF" 1/16" × 18" length	One tube	877511005196	45FCF116X18L	LB	1/16
Weldcote "45CF" 1/16" × 18" length 4oz		877511006636	45FCF116X18L4	EA	1/16
Weldcote "45CF" 3/32" × 18" length		877511005257	45FCF332X18L	LB	3/32
Weldcote "45CF" 3/32" × 18" length 4oz		877511006643	45FCF332X18L4	EA	3/32



WELDCOTE 50NCF BRAZING ALLOY

(Spec/Classification: AWS A5.8 Bag-24 / ASME SFA5.8 Bag-24)

Description:

Weldcote 50NCF is a cadmium free silver brazing alloy with nickel and the lowest working temperature in the cad-free nickel family which has great flow, wetting, ductility and penetration.

Weldcote 50NCF is commonly used to join any combination of copper, brass, steel, bronze, carbide tips and stainless steel. The addition of nickel improves the corrosion resistance needed with stainless and nickel alloys while minimizing stress corrosion cracking as well as interface corrosion.

Nominal Composition (%):

	Ag	Cu	Zn	Ni	Others
Result (%)	49.0-51.0	19.0-21.0	26.0-30.0	1.5-2.5	0.15

Physical Data:

Solidus	1220°F (660°C)
Liquidus	1305°F (707°C)
Brazing Range	1305-1550°F (710-843°C)
Color	White-Yellow to Light Gold
Specific Gravity	9.17
Density (troy oz./cu.in.)	4.80
Electrical Conductivity (% of IACS)	18.5
Electrical Resistivity (Microhm-cm)	11.85

Available Sizes: Troy Ounce Coils of 1/16" and 3/32"

50%N Bag-24		UPC #	Part #	U/M	Size
Weldcote "50NCF" 1/16" x 50 troy oz coil	One Coil	877511005097	50NCF116X50TOC	T/O	1/16
Weldcote "50NCF" 1/16" x 1 troy oz coil		877511005103	50NCF116X1TOC	EA	1/16
Weldcote "50NCF" 1/16" x 3 troy oz coil		877511005110	50NCF116X3TOC	EA	1/16
Weldcote "50NCF" 1/16" x 5 troy oz coil		877511005127	50NCF116X5TOC	EA	1/16

WELDCOTE 56CF BRAZING ALLOY

(Spec/Classification: AWS A5.8 Bag-7 / ASME SFA5.8 Bag-7)

Description:

Weldcote 56CF is a cadmium free silver brazing alloy with a narrow melting range and the lowest working temperature in the cad-free family yielding premium flow, wetting, ductility and penetration. Weldcote 56CF is commonly used to join any combinations of copper, brass, steel, bronze and stainless steel. This alloy is a great choice for food handling equipment and color match on stainless and nickel alloys while minimizing stress corrosion cracking.



Physical Data:

Solidus	1145°F (618°C)
Liquidus	1205°F (652°C)
Brazing Range	1205-1400°F (652-760°C)
Color	White to Light Gold
Specific Gravity	9.47
Density (troy oz./cu.in.)	5.00
Electrical Conductivity (% of IACS)	20.5
Electrical Resistivity (Microhm-cm)	9.58

Nominal Composition (%):

	Ag	Cu	Zn	Sn	Others
Result (%)	55.0-57.0	21.0-23.0	15.0-19.0	4.5-5.5	0.15

Available Sizes: Troy Ounce Coils of 1/32", 3/64", 1/16" & 3/32" Rods of 1/16" & 3/32"

56% Bag-7		UPC #	Part #	U/M	Size
Weldcote "56CF" 1/32" x 1 troy oz coil	One Coil	877511006964	56CF132X1T0C	EA	1/32
Weldcote "56CF" 1/32" x 3 troy oz coil		812922010698	56CF132X3T0C	EA	1/32
Weldcote "56CF" 1/32" x 5 troy oz coil		812922010704	56CF132X5T0C	EA	1/32
Weldcote "56CF" 3/64" x 1 troy oz coil	One Coil	877511006995	56CF364X1T0C	EA	3/64
Weldcote "56CF" 1/16" x 1 troy oz coil	One Coil	877511005271	56CF116X1T0C	EA	1/16
Weldcote "56CF" 1/16" x 3 troy oz coil		877511005288	56CF116X3T0C	EA	1/16
Weldcote "56CF" 1/16" x 5 troy oz coil		877511005295	56CF116X5T0C	EA	1/16
Weldcote "56CF" 1/16" x 18" length 15 t/o	One tube	877511005301	56CF116X18L5T0	T/O	1/16
Weldcote "56CF" 1/16" x 36" length 50 t/o	One carton	877511008234	56CF116X36L50T0	T/O	1/16
Weldcote "56CF" 3/32" x 50 troy oz coil	One Coil	877511005325	56CF332X50T0C	T/O	3/32
Weldcote "56CF" 3/32" x 1 troy oz coil		877511005332	56CF332X1T0C	EA	3/32
Weldcote "56CF" 3/32" x 3 troy oz coil		877511005349	56CF332X3T0C	EA	3/32
Weldcote "56CF" 3/32" x 5 troy oz coil		877511005356	56CF332X5T0C	EA	3/32

56% Bag-7 Flux-Coated		UPC #	Part #	U/M	Size
Weldcote "56CF" 1/16" x 18" length	One tube	877511005318	56FCF116X18L	LB	1/16
Weldcote "56CF" 1/16" x 18" length 4oz		877511006650	56FCF116X18L4	EA	1/16
Weldcote "56CF" 3/32" x 18" length		877511005370	56FCF332X18L	LB	3/32
Weldcote "56CF" 3/32" x 18" length 4oz		877511006667	56FCF332X18L4	EA	3/32

WELDCOTE "0" (BCuP-2) BRAZING ALLOY

(Spec/Classification: AWS A5.8M BCuP-2 / ASME SFA5.8 BCuP-2)

Description:

Weldcote 0 (BCuP-2 Phos-Copper Silver 0%) is a Phos-Copper brazing alloy formulated to join copper, brass and bronze. This alloy is commonly used where there is a close or controlled fit up. Weldcote brazing flux is needed when working on brazable grades of brass or bronze.

Phos-Copper alloys are self-fluxing on copper but should not be used on copper alloys containing more than 10% nickel, steels and ferrous metals or in any sulfurous atmospheres. Aluminum bronze requires the use of aluminum bronze brazing flux.

Nominal Composition (%):

	P	Cu	Others
Result (%)	7.0-7.5	Balance	0.15

Physical Data:

Solidus	1310°F (710°C)
Liquidus	1460°F (793°C)
Brazing Range	1350-1500°F (732-816°C)
Color	Bright Copper
Specific Gravity	8.13
Density (troy oz./cu.in.)	0.287
Electrical Conductivity (% of IACS)	8.5
Electrical Resistivity (Microhm-cm)	21.5

Available Sizes: 20" rods of 1/16", 3/32", 1/8" and .050 × 1/8"

BCuP-2 25# Bulk Packaging		UPC #	Part #	U/M	Size
Weldcote "0" 1/16" × 20" Bulk	One Carton	877511005387	0116X20L	LB	1/16
Weldcote "0" 3/32" × 20" Bulk		877511005400	0332X20L	LB	3/32
Weldcote "0" 1/8" × 20" Bulk		877511005424	018X20L	LB	1/8

BCuP-2 1# Plastic Tube		UPC #	Part #	U/M	Size
Weldcote "0" 1/16" × 20" 1# tube	One Tube	877511005394	0116X20L1	LB	1/16
Weldcote "0" 3/32" × 20" 1# tube		877511005417	0332X20L1	LB	3/32
Weldcote "0" 1/8" × 20" 1# tube		877511005431	018X20L1	LB	1/8
Weldcote "0" .050 × 1/8" × 1# tube		877511005455	0050X18X20L1	LB	.050 × 1/8

WELDCOTE "2" (BCuP-6) BRAZING ALLOY

(Spec/Classification: AWS A5.8A5.8M BCuP-6 / ASME SFA5.8 BCuP-6)

Description:

Weldcote 2 (BCuP-6 Phos-Copper Silver 2%) is a Phos-Copper brazing alloy formulated to join copper, brass and bronze. This alloy is commonly used where there is a close or controlled fit up of .003" to .005".

Weldcote brazing flux is needed when working on brazable grades of brass or bronze. Phos-Copper alloys are self-fluxing on copper but should not be used on copper alloys containing more than 10% nickel, steels and ferrous metals or in any sulfurous atmospheres. Aluminum bronze requires the use of aluminum bronze brazing flux.

Nominal Composition (%):

	P	Cu	Ag	Others
Result (%)	7.0-7.5	Balance	1.8-2.2	0.15

Physical Data:

Solidus	1190°F (643°C)
Liquidus	1450°F (790°C)
Brazing Range	1350-1500°F (732-816°C)
Color	Bright Copper
Specific Gravity	8.02
Density (troy oz./cu.in.)	0.350
Electrical Conductivity (% of IACS)	8.3
Electrical Resistivity (Microhm-cm)	22.5

Available Sizes: 20" rods of .050" × 1/8"

BCuP-6 Phos-Copper Silver 2%		UPC #	Part #	U/M	Size
Weldcote "2" .050 × 1/8 × 20" 1# tube	One Tube	877511008298	2050X18X20L1	LB	.050 × 1/8

WELDCOTE "5" (BCuP-3) BRAZING ALLOY

(Spec/Classification: AWS A5.8A5.8M BCuP-3 / ASME SFA5.8 BCuP-3)

Description:

Weldcote 5 (BCuP-3 Phos-Copper Silver 5%) is a phos-copper brazing alloy formulated to join copper, brass and bronze. This alloy may be used where joint clearance is wider than desired and will fill moderate size gaps. Weldcote brazing flux is needed when working on brazable grades of brass or bronze. Phos-copper alloys are self-fluxing on copper but should not be used on copper alloys containing more than 10% nickel, steels, and ferrous metals or in any sulfurous atmospheres. Aluminum bronze requires the use of aluminum bronze brazing flux.

Nominal Composition (%):

	P	Cu	Ag	Others
Result (%)	5.8-6.2	Balance	4.8-5.2	0.15

Physical Data:

Solidus	1190°F (643°C)
Liquidus	1450°F (790°C)
Brazing Range	1350-1500°F (732-816°C)
Color	Bright Copper
Specific Gravity	8.02
Density (troy oz./cu.in.)	0.350
Electrical Conductivity (% of IACS)	8.3
Electrical Resistivity (Microhm-cm)	22.5

Available Sizes: 20" rods of 1/16", 3/32", 1/8" and .050" × 1/8"

BCuP-3 25# Bulk Packaging		UPC #	Part #	U/M	Size
Weldcote "5" 3/32" × 20" Bulk	One Carton	877511005486	5332X20L	LB	3/32
BCuP-3 1# Plastic Tube		UPC #	Part #	U/M	Size
Weldcote "5" 1/16" × 20" 1# tube	One Tube	877511005479	5116X20L1	LB	1/16
Weldcote "5" 1/8" × 20" 1# tube		877511005516	518X20L1	LB	1/8
Weldcote "5" .050 × 1/8" × 1# tube		877511005530	5050X18X20L1	LB	.050 × 1/8

WELDCOTE "6" (BCuP-4) BRAZING ALLOY

(Spec/Classification: AWS A5.8A5.8M BCuP-4 / ASME SFA5.8 BCuP-4)

Description:

Weldcote 6 (BCuP-4 Phos-Copper Silver 6%) is a Phos-Copper brazing alloy formulated to join copper, brass and bronze. This alloy is commonly used where there is a close or controlled fit up of .001" to .005". Weldcote brazing flux is needed when working on brazable grades of brass or bronze. Phos-Copper alloys are self-fluxing on copper but should not be used on copper alloys containing more than 10% nickel, steels and ferrous metals or in any sulfurous atmospheres. Aluminum bronze requires the use of aluminum bronze brazing flux.

Nominal Composition (%):

	P	Cu	Ag	Others
Result (%)	5.2-5.6	Balance	5.8-6.2	0.15

Physical Data:

Solidus	1190°F (643°C)
Liquidus	1325°F (730°C)
Brazing Range	1325-1500°F (730-816°C)
Color	Bright Copper
Specific Gravity	8.02
Density (troy oz./cu.in.)	0.350
Electrical Conductivity (% of IACS)	8.3
Electrical Resistivity (Microhm-cm)	22.5

Available Sizes: 20" rods of .050" × 1/8"

BCuP-4 Phos-Copper Silver 6%		UPC #	Part #	U/M	Size
Weldcote "6" .050 × 1/8 × 20" 1# tube	One Tube	877511008272	6050X18X20L1	LB	.050 × 1/8

WELDCOTE "15" (BCuP-5) BRAZING ALLOY

(Spec/Classification: AWS A5.8A5.8M BCuP-5 / ASME SFA5.8 BCuP-5)

Description:

Weldcote 15 (BCuP-5 Phos-Copper Silver 5%) is a phos-copper brazing alloy formulated to join copper, brass and bronze. This alloy is the standard of the industry for many air conditioning and refrigeration applications as well as electrical. Weldcote brazing flux is needed when working on brazable grades of brass or bronze. Phos-copper alloys are self-fluxing on copper but should not be used on copper alloys containing more than 10% nickel, steels, and ferrous metals or in any sulfurous atmospheres. Aluminum bronze requires the use of aluminum bronze brazing flux.

Nominal Composition (%):

	P	Cu	Ag	Others
Result (%)	4.8-5.2	Balance	14.5-15.5	0.15

Physical Data:

Solidus	1190°F (643°C)
Liquidus	1475°F (802°C)
Brazing Range	1300-1500°F (704-816°C)
Color	Bright Silver Copper
Specific Gravity	8.44
Density (troy oz./cu.in.)	0.301
Electrical Conductivity (% of IACS)	9.91
Electrical Resistivity (Microhm-cm)	17.38

Available Sizes: 20" rods of 1/16", 3/32", 1/8" and .050" × 1/8"

BCuP-3 25# Bulk Packaging		UPC #	Part #	U/M	Size
Weldcote "15" 1/8" × 20" Bulk	One Carton	877511005585	1518X20L	LB	1/8

BCuP-3 1# Plastic Tube		UPC #	Part #	U/M	Size
Weldcote "15" 1/8" × 20" 1# Tube	One Tube	877511005592	1518X20L1	LB	1/8
Weldcote "15" 1/16" × 20" 1# Tube		877511005479	15116X20L1	LB	1/16
Weldcote "15" .050" × 1/8" × 1# Tube		877511005615	15050X18X20L1	LB	.050 × 1/8



WELDCOTE 96/4 SIL-BRITE (96% Tin / 4% Silver)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn96, NSF51 and QQ-S-571F)

Description:

Weldcote 96/4 has excellent strength with high elongation and vibration resistance for sound joints in many applications. 96/4 has a low melting temperature and bonds with all the ferrous and non-ferrous alloys including stainless, nickel, copper tubing, brass, etc. This alloy will prevent distortion and loss of your base metal properties. For use on copper tubing, it will result in a stronger overall finished assembly than the typical braze alloys. This solder is used where solder joints require added strength: E.g. Air conditioning industry. Used in applications where the joint is under stress from physical tension or a pressurized environment.

Nominal Composition (%):

	Ag	Sn
Result (%)	3.5-4.5	Balance

Available Sizes:

- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8"

Applications:

HVAC, Plumbing, Jewelry and Handyman repair service.

Physical Data:

Solidus	430°F (221°C)
Liquidus	475°F (246°C)
Electrical Conductivity	16.5 IACS
Color	Bright Silver
Elongation	49%
Density	7.40 g/cm ³
Tensile Strength	14,000 psi
Shear Strength	11,000 psi

WELDCOTE 96/4 (96% Tin / 4% Silver)	UPC #	Part #	U/M	Size
96/4 Solder 1/16 × 1# Spool	One Spool	877511007817	964116X1SP	LB 1/16
96/4 Solder 3/32 × 1# Spool		877511007824	964332X1SP	LB 3/32
96/4 Solder 1/8 × 1# Spool		877511007831	96418X1SP	LB 1/8
96/4 Solder 1/8 × 5# Spool		877511007848	96418X5SP	LB 1/8

WELDCOTE 94/6 SIL-BRITE (94% Tin / 6% Silver)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn96, NSF51 and QQ-S-571F)

Description:

Weldcote 94/6 has excellent strength with high elongation and vibration resistance for sound joints in many applications. 94/6 has a low melting temperature and bonds with all the ferrous and non-ferrous alloys including stainless, nickel, copper tubing, brass, etc. This alloy will prevent distortion and loss of your base metal properties. For use on copper tubing, it will result in a stronger overall finished assembly than the typical braze alloys. 94/6 solder is used in applications in the jewelry industry, plumbing, food service equipment and repair. Solders well to stainless and used in applications where a stronger joint is required.

Nominal Composition (%):

	Ag	Sn
Result (%)	5.4-6.0	Balance

Available Sizes:

- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8"

Applications:

HVAC, Plumbing, Jewelry and Handyman repair service.

Physical Data:

Solidus	430°F (221°C)
Liquidus	536°F (280°C)
Electrical Conductivity	17.0 IACS
Color	Bright Silver
Elongation	49%
Density	7.47 g/cm ³
Tensile Strength	15,000 psi
Shear Strength	13,000 psi

WELDCOTE 94/6 (94% Tin / 6% Silver)	UPC #	Part #	U/M	Size
94/5 Solder 1/16 × 1# Spool	One Spool	877511007855	946116X1SP	LB 1/16

WELDCOTE ALUMITE

High Strength Fluxless Zinc Alloy Solder for Pot Metals, Zinc & Aluminum

Description:

Alumite is a fluxless brazing rod for the fabrication, maintenance and repair of aluminum alloys, zinc die cast, pot metal and white metal. It is also an excellent general purpose high strength solder.

Applications:

Aluminum alloys, zinc die cast, pot metal and white metal such as machine bases and supports, housings, mounts, and can buildup and fill in areas. It can also be used as a high strength solder.

Procedure:

- Clean joint of as much residual debris, grease or other contaminants as possible. Break surface oxides by mechanical means (scratching, scraping, etc), bevel heavy sections and use fixtures or jigs to hold parts in alignment.
- With a slightly carburizing flame, heat the base metal to working temperature of the alloy taking care to keep the flame moving.
- Apply alloy by rubbing the rod against heated base metal. Do not heat the rod directly.
- Allow the part to cool before removing from fixtures.

WELDCOTE ALUMITE		UPC #	Part #	U/M	Size
Alumite 1/8	4-5 lb. Tubes 20 lb. Carton	877511007916	ALUMITE18	LB	1/8

WELDCOTE ALUMINUM

All Purpose Flux Cored Brazing Rod

Description:

Flux Cored Aluminum for Maintenance and Repair (Tubular aluminum rod) is an all-purpose brazing/braze welding alloy for oxy-acetylene applications to aluminum. Flux percentage is ideally calculated to optimize performance. Flux Cored Aluminum has a virtually seamless, closed tube, thus protecting the active flux core from the atmosphere.

Applications:

Flux Cored Aluminum is ideal for joining all brazable grades of aluminum sheet, plate, tubing, piping, extrusions, rods and wires. It can be used to repair brazable aluminum castings, filling in holes, building up worn or missing sections and joining cast to wrought parts. General purpose outdoor use on repairing aluminum skids, platforms, loading docks, truck bodies, irrigation piping, fences and railings whenever inert gas welding or shielded metal arc welding is impractical.

Procedure:

- Remove oxides and foreign material from weld area preferably by mechanical means (scraping, filing, etc). Bevel parts thicker than 3/16" to form a 60° vee.
- With the oxy/fuel torch adjusted to a slightly carburizing flame, heat work broadly to about 1000°F. Melt 1/4" of the rod off onto the work piece (the flux will also turn to a liquid); continue heating until alloy flows out.
- Lower the angle of the torch; continue adding alloy a drop at a time until weld is complete.
- Allow part to cool slowly. Remove all flux residue with stiff brush and hot water.

WELDCOTE ALUMINUM		UPC #	Part #	U/M	Size
Flux-Cored Aluminum 1/8 x 32"	4-5 lb. Tubes 20 lb. Carton	877511007947	FCALUM18	LB	1/8

WELDCOTE CAST IRON

Alloy Fusion Welding Rod

Description:

Cast Iron Rod is a high quality gray iron oxy-acetylene welding rod designed for gas welding of cast iron, general fabrication or buildup new or worn surfaces on castings. Cast Iron Rod produces machinable weld deposits that have the same color, composition and granular structure as the base metal (gray iron). The weld, if properly made, can be as strong as the original casting.

Applications:

For gas welding of cast iron in fabrication or buildup on new or worn surface on castings. Cast Iron rod is used to repair machine bases, manifolds, engine blocks, cylinder heads and gear housings.

Procedure:

- Bevel heavy sections to form a 75° vee. Always use a neutral flame to prevent porosity due to oxidation of carbon.
- Preheat part to 800°F before starting to weld. Heat rod end, dip in Weldcote Cast Iron Flux and transfer to weld area (fusion welding).
- Melt off a small amount of rod; continue heating until deposit flows out.
- Add filler metal a drop at a time making sure each deposit is fused to the base metal; use Weldcote Cast Iron Flux for good cleaning and protection.
- After welding allow part to cool slowly to prevent hardening and cracking.

WELDCOTE CAST IRON		UPC #	Part #	U/M	Size
Cast Iron Rod for Oxy-Fuel 1/4 x 18"	4-10 lb. Tubes 40 lb. Carton	877511008395	CASTIRON14X18L	LB	1/4 x 18"

WELDCOTE NiAg CARBIDE COMPOSITE ROD

Wear Resistant Alloy with Tungsten Carbide Particles

Description:

NiAg Carbide Composite rods are a wear-resistant alloy for gas welding maintenance and repair. This composite-type rod is made up of hard, sharp tungsten carbide particles. They are held in a shock-resistant, high-strength matrix to keep the carbide particles in place, even under extreme conditions. NiAg rods are to be used on steel, cast iron and copper alloys. When the exposed carbide chips become dull, they can be heated and repositioned to expose new, sharp edges to help reduce applications cost.

Applications:

Ideal for overlay drills, reamers, bucket teeth, augers, stabilizer milling tools or any parts that take severe abrasion. Used extensively in the oil and earth moving industries where abrasion resistance and good impact qualities are important. Also used in the agriculture and dredging industries on mill hammers, plow shares, cultivate shovels, dredge bucket lips, dredge pump cutters, side pump plate and drive tumbler plates. Additional uses are in the brick and cement industries for crusher rolls, muller plows, shredder knives, pug mill knives and pipe forming shoes.

Procedure:

- Thoroughly clean base material of all debris and previous coatings.
- Grit blasted surfaces are preferable but not required. Use a large neutral flame to preheat base metal.
- Direct flame to rod until flux melts and alloy begins to flow out. Continue preheating part and applying alloy where desired.
- Rotating the rod during work will encourage even heating and carbide distribution.
- Allow part to cool slowly. Do not quench.

NIAGCARBIDE COMPOSITE ROD		UPC #	Part #	U/M	Size
NiAg Carbide 3/16 x 1/8	4-10 lb. Tubes 40 lb. Carton	877511007923	NIAG316X18	LB	3/16 x 1/8
NiAg Carbide 3/16 x 1/4		877511007930	NIAG316X14	LB	3/16 x 1/4

WELDCOTE GALVANIZING SOLDER

Repairing Damaged Galvanized Materials

Description:

GALVINIZING SOLDER is a self-fluxing solder alloy for repairing damaged galvanized materials. It is very easy to apply and bonds to most metals. GALVINIZING-SOLDER will not peel or burn off and is superior to original galvanize. It has an excellent resistance to corrosion. Working temperature is about 600°F.

Applications:

GALVINIZING-SOLDER rust-proofs burned and/or damaged galvanized coatings on sheet, bar or pipe. It is an excellent filler metal on rusty auto or truck bodies and cabs rather than plastics; also on all applications where parts cannot be disassembled to take to galvanizing tanks. It is used in field pipeline welding to prevent corrosion of welded areas.

Procedure:

- No flux is required. Apply GALVINIZING-SOLDER while metal is still hot.
- A clean wire brush will aid in tinning the surface. It can also be tinned with a paddle or cloth.
- Do not direct a flame on the alloy. Rub the rod on the metal, when it melts the temperature is correct.

WELDCOTE GALVANIZING SOLDER		UPC #	Part #	U/M	Size
GALVINIZING-SOLDER 1/4 x 1/4 x 14"	4-5 lb. Tubes 20 lb. Carton	877511007756	GALVSOLDER14	LB	1/4 x 1/4 x 14"



WELDCOTE 40/60 (Tin/Lead Solid)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-40A and QQ-S-571F)

Description:

Weldcote 40/60 Tin/Lead Solid Solder can be used to solder copper and most copper alloys, lead, nickel alloys and steel.

The 40/60 solder is a general purpose solder used for non-electrical applications. It is used for applications in the sheet metal, stained glass, galvanized gutters and radiator repair industries.

The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	39.5-41.5	Balance

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"

WELDCOTE 40/60 (Tin/Lead Solid)	UPC #	Part #	U/M	Size
40/60 Solder 1/16 × 1# Spool	One Spool	877511007312	4060116X1SP	LB 1/16
40/60 Solder 3/32 × 1# Spool		877511007329	4060332X1SP	LB 3/32
40/60 Solder 1/8 × 1# Spool		877511007336	406018X1SP	LB 1/8
40/60 Solder 1/8 × 5# Spool		877511007343	406018X5SP	LB 1/8

Physical Data:

Solidus	362°F (183°C)
Liquidus	460°F (238°C)
Electrical Conductivity	43.6 (W/m-K)
Electrical Resistivity	166 (10 ⁹ ohm-m)
Color	Silver
Elongation	25%
Density	9.34 g/cm ³
Tensile Strength	6,320 psi
Shear Strength	5,680 psi

WELDCOTE 40/60 (Tin/Lead Acid Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-40A Tapp WOAP-2, and QQ-S-571F)

Description:

Weldcote 40/60 Tin/Lead Acid Core Solder contains a 2.30–3.20% acid core. Acid core solders are used for soldering materials with poor solderability (steels, zinc, heavy oxidized nickel, aluminum, etc.). With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The 40/60 acid core solder is a general purpose solder used for non-electrical applications. It is used for applications in the sheet metal, stained glass, galvanized gutters, and radiator repair industries. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	39.5-41.5	Balance

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"

WELDCOTE 40/60 (Tin/Lead Acid Core)	UPC #	Part #	U/M	Size
40/60 Acid Core 1/16 × 1# Spool	One Spool	877511007350	4060AC116X1SP	LB 1/16
40/60 Acid Core 3/32 × 1# Spool		877511007367	4060AC332X1SP	LB 3/32
40/60 Acid Core 1/8 × 1# Spool		877511007374	4060AC18X1SP	LB 1/8
40/60 Acid Core 1/8 × 5# Spool		877511007381	4060AC18X5SP	LB 1/8

Physical Data:

Solidus	362°F (183°C)
Liquidus	460°F (238°C)
Electrical Conductivity	43.6 (W/m-K)
Electrical Resistivity	166 (10 ⁹ ohm-m)
Color	Silver
Elongation	25%
Density	9.34 g/cm ³
Tensile Strength	6,320 psi
Shear Strength	5,680 psi

WELDCOTE 40/60 (Tin/Lead Rosin Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-40A Tayp WOAP-2, and QQ-S-571F)

Description:

Weldcote 40/60 Tin/Lead Rosin Core Solder contains a 2.30-3.20% rosin core. Rosin core solders are used in applications where you are soldering to metals that are fair to excellent in solderability: coppers, brass, bronze and nickels. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel.

The 40/60 rosin core solder is a general purposesolder used for non-electrical applications. It is used for applications in the sheet metal, stained glass, galvanized gutters and radiator repair industries. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	39.5-41.5	Balance

Physical Data:

Solidus	362°F (183°C)
Liquidus	460°F (238°C)
Electrical Conductivity	43.6 (W/m-K)
Electrical Resistivity	166 (10 ⁹ ohm-m)
Color	Silver
Elongation	25%
Density	9.34 g/cm ³
Tensile Strength	6,320 psi
Shear Strength	5,680 psi

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"

WELDCOTE 40/60 (Tin/Lead Rosin Core)	UPC #	Part #	U/M	Size	
40/60 Rosin Core 1/16 × 1# Spool	One Spool	877511007398	4060RC116X1SP	LB	1/16
40/60 Rosin Core 3/32 × 1# Spool		877511007404	4060RC332X1SP	LB	3/32
40/60 Rosin Core 1/8 × 1# Spool		877511007411	4060RC18X1SP	LB	1/8

WELDCOTE 50/50 (Tin/Lead Solid)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-50, NSF51 and QQ-S-571F)

Description:

Weldcote 50/50 Tin/Lead Solid Solder can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The 50/50 solder is a general purpose solder used for non-electrical applications.

It is used for applications in the sheet metal, stained glass, galvanized gutters, and radiator repair industries.

The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties.

This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	50.0	50.0

Physical Data:

Solidus	362°F (183°C)
Liquidus	420°F (215°C)
Electrical Conductivity	47.8 (W/m-K)
Electrical Resistivity	153 (10 ⁹ ohm-m)
Color	Silver
Elongation	35%
Density	8.91 g/cm ³
Tensile Strength	6,450 psi
Shear Strength	5,840 psi

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"
- Tri-Bar - 7/16" × 20" Approximately Weighs .55 to .60 lbs.

WELDCOTE 50/50 (Tin/Lead Solid)	UPC #	Part #	U/M	Size	
50/50 Bar Solder 1# Bar	One Bar	877511007435	50501BAR	LB	1# Bar
50/50 Solder 1/16 × 1# Spool	One Spool	877511007442	5050116X1SP	LB	1/16
50/50 Solder 3/32 × 1# Spool		877511007459	5050332X1SP	LB	3/32
50/50 Solder 1/8 × 1# Spool		877511007466	505018X1SP	LB	1/8
50/50 Solder 1/8 × 5# Spool		877511007473	505018X5SP	LB	1/8
50/50 Tri Bar	One Bar	877511007480	5050TRIBAR	LB	7/16 × 20"

WELDCOTE 50/50 (Tin/Lead Acid Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-50 Tays WOAP-2, and QQ-S-571F)

Description:

Weldcote 50/50 Tin/Lead Acid Core Solder contains a 2.30-3.20% acid core. Acid core solders are used for soldering materials with poor solderability: steels, zinc, heavily oxidized nickel, aluminum, etc. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The 50/50 acid core solder is a general purpose solder used for non-electrical applications. It is used for applications in the sheet metal, stained glass, galvanized gutters, and radiator repair industries. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	50.0	50.0

Physical Data:

Solidus	362°F (183°C)
Liquidus	460°F (238°C)
Electrical Conductivity	47.8 (W/m-K)
Electrical Resistivity	153 (10 ⁹ ohm-m)
Color	Silver
Elongation	35%
Density	8.91 g/cm ³
Tensile Strength	6,450 psi
Shear Strength	5,840 psi

Available Sizes:

• 1 Pound Bar • 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8" • Tri-Bar - 7/16" x 20" Approximately Weighs .55 to .60 lbs.

WELDCOTE 50/50 (Tin/Lead Acid Core)		UPC #	Part #	U/M	Size
50/50 Acid Core 1/16 x 1# Spool	One Spool	877511007497	5050AC116X1SP	LB	1/16
50/50 Acid Core 3/32 x 1# Spool		877511007503	5050AC332X1SP	LB	3/32
50/50 Acid Core 1/8 x 1# Spool		877511007510	5050AC18X1SP	LB	1/8
50/50 Acid Core 1/8 x 5# Spool		877511007527	5050AC18X5SP	LB	1/8

WELDCOTE 50/50 (Tin/Lead Rosin Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-50 Tays WOAP-2, and QQ-S-571F)

Description:

Weldcote 50/50 Tin/Lead Rosin Core Solder contains a 2.30-3.20% rosin core. Rosin core solders are used in applications where you are soldering to metals that are fair to excellent in solderability: coppers, brass, bronze and nickels. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The 50/50 rosin core solder is a general purposesolder used for non-electrical applications. It is used for applications in the sheet metal, stained glass, galvanized gutters, and radiatorrepair industries. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	50.0	50.0

Physical Data:

Solidus	362°F (183°C)
Liquidus	460°F (238°C)
Electrical Conductivity	47.8 (W/m-K)
Electrical Resistivity	153 (10 ⁹ ohm-m)
Color	Silver
Elongation	35%
Density	8.91 g/cm ³
Tensile Strength	6,450 psi
Shear Strength	5,840 psi

Available Sizes:

• 1 Pound Bar • 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8" • Tri-Bar - 7/16" x 20" Approximately Weighs .55 to .60 lbs.

WELDCOTE 50/50 (Tin/Lead Rosin Core)		UPC #	Part #	U/M	Size
50/50 Rosin Core 1/16 x 1# Spool	One Spool	877511007534	5050RC116X1SP	LB	1/16
50/50 Rosin Core 3/32 x 1# Spool		877511007541	5050RC332X1SP	LB	3/32
50/50 Rosin Core 1/8 x 1# Spool		877511007558	5050RC18X1SP	LB	1/8
50/50 Rosin Core 1/8 x 5# Spool		877511007565	5050RC18X5SP	LB	1/8

WELDCOTE 60/40 (Tin/Lead Solid)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-60 and QQ-S-571F)

Description:

Weldcote 60/40 Tin/Lead Solid Solder is used extensively for electrical applications. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel.

The 60/40 solder is also used for wave dip soldering on electrical assemblies where lower temperatures are required. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	59.5-61.5	Balance

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"

WELDCOTE 60/40 (Tin/Lead Solid)		UPC #	Part #	U/M	Size
60/40 Bar Solder 1# Bar	One Bar	877511007572	60401BAR	LB	1# Bar
60/40 Solder 1/16 × 1# Spool	One Spool	877511007589	6040116X1SP	LB	1/16
60/40 Solder 3/32 × 1# Spool		877511007596	6040332X1SP	LB	3/32
60/40 Solder 1/8 × 1# Spool		877511007602	604018X1SP	LB	1/8
60/40 Solder 1/8 × 5# Spool		877511007619	604018X5SP	LB	1/8

Physical Data:

Solidus	362°F (183°C)
Liquidus	375°F (190°C)
Electrical Conductivity	49.8 (W/m-K)
Electrical Resistivity	145 (10 ⁹ ohm-m)
Color	Silver
Elongation	40%
Density	8.67 g/cm ³
Tensile Strength	6,400 psi
Shear Strength	5,700 psi

WELDCOTE 60/40 (Tin/Lead Acid Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-60 Tayp WOAP-2, and QQ-S-571F)

Description:

Weldcote 60/40 Tin/Lead Acid Core Solder contains a 2.30-3.20% acid core. Acid core solders are used for soldering materials with poor solderability: steels, zinc, heavily oxidized nickel aluminum, etc. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The acid core solders are not recommended for electrical applications due to corrosive properties of the flux residue. The tin-lead solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	59.5-61.5	Balance

Available Sizes:

- 1 Pound Bar
- 1 Pound Spool - Diameters 1/16", 3/32" & 1/8"
- 5 Pound Spool - Diameter 1/8"

WELDCOTE 60/40 (Tin/Lead Acid Core)		UPC #	Part #	U/M	Size
60/40 Acid Core 1/8 × 1# Spool	One Spool	877511007640	6040AC18X1SP	LB	1/8

Physical Data:

Solidus	362°F (183°C)
Liquidus	375°F (190°C)
Electrical Conductivity	49.8 (W/m-K)
Electrical Resistivity	145 (10 ⁹ ohm-m)
Color	Silver
Elongation	40%
Density	8.67 g/cm ³
Tensile Strength	6,400 psi
Shear Strength	5,700 psi

WELDCOTE 60/40 (Tin/Lead Rosin Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Alloy Grand Sn-60 Tayp WOAP-2, and QQ-S-571F)

Description:

Weldcote 60/40 Tin/Lead Rosin Core Solder contains a 2.30-3.20% rosin core. Rosin core solders are used in applications where you are soldering metals that are fair to excellent in solderability: coppers, brass, bronze and nickels. With some exceptions, tin-lead solders can be used to solder copper and most copper alloys, lead, nickel alloys and steel. The 60/40 solder is used extensively for electrical applications and also used for wave dip soldering of electrical assemblies where lower temperatures are required. The rosin core solders are not recommended in high stress or vibration joints in the cooling industry due to the lack of sufficient elongation properties. This product contains lead and should not be used in potable water systems.

Nominal Composition (%):

	Sn	Pb
Result (%)	59.5-61.5	Balance

Available Sizes:

• 1 Pound Bar • 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8"

WELDCOTE 60/40 (Tin/Lead Rosin Core)		UPC #	Part #	U/M	Size
60/40 Rosin Core 1/16 × 1# Spool	One Spool	877511007664	6040RC116X1SP	LB	1/16
60/40 Rosin Core 3/32 × 1# Spool		877511007671	6040RC332X1SP	LB	3/32
60/40 Rosin Core 1/8 × 1# Spool		877511007688	6040RC18X1SP	LB	1/8

Physical Data:

Solidus	362°F (183°C)
Liquidus	375°F (190°C)
Electrical Conductivity	49.8 (W/m-K)
Electrical Resistivity	145 (10 ⁹ ohm-m)
Color	Silver
Elongation	40%
Density	8.67 g/cm ³
Tensile Strength	6,400 psi
Shear Strength	5,700 psi

WELDCOTE 95/5 (Tin/Lead Antimony Core)

(Spec/Classification: Manufactured to J-STD-006, ASTM-B32 Grand Sb-5 and QQ-S-571F)

Description:

Weldcote 95/5 Tin Antimony solder is useful for applications where moderately elevated temperature is a factor. With a higher electrical conductivity and high fluidity, it is recommended for lead free installation of small diameter, tight fitting connections.

Used in joining of copper tubing in refrigeration and air conditioning applications. 95/5 is also used in piping and fittings for drinking water systems and may be used in the dipping of wire harnesses. These solders are not recommended for use on brass.

Nominal Composition (%):

	Sn	Pb
Result (%)	50.0	50.0

Available Sizes:

• 1 Pound Bar • 1 Pound Spool - Diameters 1/16", 3/32" & 1/8" • 5 Pound Spool - Diameter 1/8"

WELDCOTE 95/5 (95% Tin / 5% Lead Antimony)		UPC #	Part #	U/M	Size
95/5 Bar Solder 1# Bar	One Bar	877511007701	9551BAR	LB	1# Bar
95/5 Solder 1/16 dia × 1# Spool	One Spool	877511007718	955116X1SP	LB	1/16
95/5 Solder 3/32 dia × 1# Spool		877511007725	955332X1SP	LB	3/32
95/5 Solder 1/8 dia × 1# Spool		877511007732	95518X1SP	LB	1/8
95/5 Solder 1/8 dia × 5# Spool		877511007749	95518X5SP	LB	1/8

Physical Data:

Solidus	450°F (232°C)
Liquidus	464°F (240°C)
Electrical Conductivity	11.9% at 68°F (IACS)
Electrical Resistivity	145n m at 77°F
Color	Silver
Elongation	N/A
Density	7.26 g/cm ³
Tensile Strength	5,900 psi
Shear Strength	6,200 psi

WELDCOTE WHITE PASTE FLUX

(Spec/Classification: AWS A5.31, Type FB3A, AMS 3410, Fed Spec 0-F-499, Type B)

Description:

- Weldcote White Paste Flux is formulated as a general purpose silver brazing flux. It is ideal for brazing copper, brass, nickel, carbon steel, stainless steel and precious metals. Residues are water soluble.
- Weldcote White Paste Flux is a creamy, white silver brazing paste flux that is active and protective to 870°C/1600°F.
- It was formulated for the majority of brazing operations and is recommended for use with copper, copper based alloys, steel, stainless steel, nickel, carbides, precious metals and heat resistant alloys.
- Weldcote White Paste Flux is available in dispensable form suitable for spraying or other automatic application methods. The flux will not harden or crystallize, retaining its creamy texture up to two (2) years.

Applications:

- Weldcote White Paste Flux may be used in concentrated form or diluted with water to a thinner consistency.
- Heating the flux to 60°C/140°F -82°C/180°F makes it less viscous and more reactive. Heat the flux slowly to reduce spattering or excessive bubbling.
- The raw flux and residues are soluble in hot water (at least 140°F/60°C).
- Chipping or grinding is not necessary.

Physical Properties:

Form	Creamy Paste
Color	White
Specific Gravity	1.6
Water Content	Less than 35%
pH	8.3 ±0.2
Flash Point	None
Freezing Effects	None
Active Temp Range	540°C/1000°F - 870°C/1600°F

Procedure:

- Remove any oil, grease or other contaminants from the surface to be brazed.
- Apply flux to joint by dipping, swabbing or brushing area being brazed. The flux may be used as supplied or diluted.
- Apply heat by torch, induction or other means to the area being brazed after the flux has been applied to activate the flux.
- Feed the braze alloy into the joint, unless a brazing perform is already in place.
- Clean flux residues from brazed joint using hot water (60°C ±5°C/140°F ±10°F) for best results. If unavailable, room temperature water may also be used.

Appropriate Filler Metals: BAg / BCuP

Safety Precautions:

- Weldcote White Paste Flux contains potassium bifluoride (CAS # 7789-29-9) and potassium fluoborate (CAS # 14075-53-7) and should be handled with care.
- Avoid contact with skin, eyes and clothing.
- Use NIOSH approved safety goggles, rubber gloves and a rubber apron. As an added precaution, wash hands thoroughly after each use. Brazing should be done with adequate ventilation.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines.
- Weldcote White Paste Flux has a two (2) year shelf life when stored properly.
- Refer to SDS for additional safety information.

WHITE PASTE FLUX-FOR SILVER BRAZING	UPC #	Part #	U/M	Size
White Paste Flux 1/4 pound Jar	877511008203	WPFLUX14JAR	EA	1/4 Pound
White Paste Flux 1/2 pound Jar	877511005875	WPFLUX12JAR	EA	1/2 Pound
White Paste Flux 1 pound Jar	877511005882	WPFLUX1JAR	EA	1 Pound
White Paste Flux 6 ounce with brush cap	877511005899	WPFLUX6OZ	EA	6 Ounces



WELDCOTE BLACK PASTE FLUX

(Spec/Classification: AWS A5.31, Type FB3C, AMS 3411, Fed Spec 0-F-499, Type B)

Description:

- Weldcote Black Paste Flux is formulated for the majority of brazing operations. It is recommended for use with copper, copperbased alloys, brass, nickel, carbon steel, stainless steel and precious metals and heat resistant alloys. Residues are water soluble.
- Weldcote Black Paste Flux is a creamy, black silver brazing paste flux that is active and protective to 980°C/1800°F. It was formulated for the majority of brazing operations and is recommended for use with copper, copper based alloys, steel, stainless steel, nickel, carbides, precious metals and heat resistant alloys.
- Weldcote White Paste Flux is available in dispensable form suitable for spraying or other automatic application methods.
- The flux will not harden or crystallize, retaining its creamy texture up to two (2) years.

Applications:

- Weldcote Black Paste Flux may be used in concentrations form or diluted with water to a thinner consistency.
- Heating the flux to 60°C/140°F -82°C/180°F makes it less viscous and more reactive. Heat the flux slowly to reduce spattering or excessive bubbling.
- The raw flux and residues are soluble in hot water. Chipping or grinding is not necessary.
- Weldcote Black Paste Flux is a general purpose brazing flux used in a wide variety of joining applications for many different finished products including: appliances, automotive, carbide tools, dental tools, orthodontia, farm machinery, heat exchanges, heat equipment, maintenance, mining tools, musical instruments, plumbing fixtures, refrigeration and air conditioning, ship repair, steel furniture and welding equipment.

Physical Properties:

Form	Creamy Paste
Color	Black
Specific Gravity	1.6
Water Content	Less than 35%
pH	8.3 ± 0.2
Flash Point	None
Freezing Effects	None
Active Temp Range	540°C/1000°F - 980°C/1800°F

Procedure:

- Remove any oil, grease or other contaminants from the surface to be brazed.
- Apply flux to joint by dipping, swabbing or brushing area being brazed. The flux may be used as supplied or diluted.
- Apply heat by torch, induction or other means to the area being brazed after the flux has been applied to activate the flux.
- Feed the braze alloy into the joint, unless a brazing perform is already in place.
- Clean flux residues from brazed joint using hot water (60°C ±5°C/140°F ±10°F) for best results. If unavailable, room temperature water may also be used.

Appropriate Filler Metals: BAg / BCuP

Safety Precautions:

- Weldcote Black Paste Flux contains potassium bifluoride (CAS # 7789-29-9) and potassium fluoborate (CAS # 14075-53-7) and should be handled with care.
- Avoid contact with skin, eyes and clothing.
- Use NIOSH approved safety goggles, rubber gloves and a rubber apron. As an added precaution, wash hands thoroughly after each use. Brazing should be done with adequate ventilation.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines.
- Weldcote Black Paste Flux has a two (2) year shelf life when stored properly.
- Refer to SDS for additional safety information.



BLACK PASTE FLUX-FOR SILVER BRAZING		UPC #	Part #	U/M	Size
Black Paste Flux 1/2 pound Jar	One Jar	877511005905	BPFLUX12JAR	EA	1/2 Pound
Black Paste Flux 1 pound Jar		877511005912	BPFLUX1JAR	EA	1 Pound
Black Paste Flux 5 pound Jar		877511009408	BPFLUX5JAR	EA	5 Pound

WELDCOTE WHITE ANTI BORAX FLUX

(Spec/Classification: AWS A5.31, Type FB3J, MIL-F-16136B, Type A & B)

Description:

- Weldcote White Anti Borax Flux is a brazing powder flux that is active in the temperature range 1400-2200°F/760-1205°C.
- It is used for brazing brass, bronze, copper, steel, stainless steel, malleable iron, and heat resistant alloys.
- Weldcote White Anti Borax Flux promotes deep penetration of the filler metal in the joints, resulting in high bond-strength. It dissolves and removes oxides rapidly and thoroughly with a minimum of bubbling, keeping impurities and porosity out of joints.

Physical Properties:

Form	Powder
Color	White
Specific Gravity	1.5 (average)
Flammability	None
Volatile Content	0.10%
Freezing Effects	None
Active Temp Range	760°C/1400°F - 1205°C/2200°F

Applications:

Weldcote White Anti Borax Flux is used in the following applications: Appliances, farm machinery, heat exchangers, heat equipment, maintenance, ship repair, steel furniture and welding equipment.

Procedure:

- Thoroughly clean the work piece; breaks should be enlarged to a V-notch.
- Heat the end of the metal rod with a torch and dip into the flux or sprinkle the flux on the work piece. At the right temperature, flux will turn into a liquid that rapidly flows into all cracks and crevices, removing oxides and other impurities.
- Continue to melt the filler rod until the break or joint is filled, avoiding overheating. It is well to remember that in brazing, only the filler metal is melted.
- Weldcote White Anti Borax Flux may also be used as a paste by adding water and mixing well.
- Brush the paste on the work piece and also on the brazing rod, allow the paste to dry, and apply heat.
- Flux residues wash off completely using hot water.

Appropriate Filler Metals: BAg / BNi / RBCuZn / BCu / BAu

Safety Precautions:

- Weldcote White Anti Borax Flux contains no fluorides and is reasonably safe to use. Respiratory protection should be worn in heavy dust concentrations.
- The flux is not absorbed through healthy, intact skin, but is absorbed through burned or wounded skin areas, or if ingested. Absorption or ingestion may cause pathological disturbance. Brazing should be carried out only in well-ventilated areas.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines.
- Weldcote White Anti Borax Flux has a two (2) year shelf life when stored properly.
- Refer to SDS for additional safety information.

POWDERED FLUX-GENERAL PURPOSE BRAZING	UPC #	Part #	U/M	Size
White Anti Borax Flux 1 pound Jar	877511005929	WPWDFLUX1JAR	EA	1 Pound



WELDCOTE GENERAL PURPOSE LIQUID SOLDERING FLUX

(Spec/Classification: Fed Spec O-F 506C, Type 1 Form B)

Description:

- Weldcote Liquid Soldering Flux is a water based, general purpose, inorganic-acid flux formulated for soldering stainless steel and other industrial metals.
- The flux contains zinc chloride, ammonium chloride and hydrochloric acid, that make this flux active at room temperature where it begins to clean metals and remove oxides.
- The flux exerts a strong scavenging action to remove oxide coatings and other impurities from the metal surface to produce strong joints. Pre-cleaning is not necessary under most conditions.

Applications:

- Weldcote Liquid Soldering Flux is excellent for use on stainless steel, monel, high-chrome alloys, Inconel, nickel, copper, brass, ferrous alloys and many more metals.
- It is not recommended for aluminum and magnesium.

Procedure:

Directions: Weldcote Liquid Soldering Flux may be applied with a brush, swab or by dipping. The flux exhibits the best activity between 93°C/200°F and 315°C/600°F. Post-solder residues are water-soluble and hot water rinses (140°F or higher) may be adequate for most applications.

The following steps are recommended for optimum soldering results.

- Remove any oil, grease, or other contaminants from the surface to be soldered.
- Apply flux to joint by dipping, spraying, dragging, swabbing or brushing to area being soldered.
- Preheat or air-dry area to be soldered after flux has been applied to activate the flux and yield optimum soldering characteristics and reduce or eliminate spattering.
- Apply solder, dip part, place torch or iron to area being soldered.
- To insure complete removal of flux residues, first use water containing 2% HCl followed by as many hot water rinses as necessary.

Physical Properties:

Form	Colorless Liquid
Specific Gravity	1.326 ± 0.01 @ 20°C
pH	0.1
Flash Point	None
Freezing Effects	None
Residues	Completely Water-Soluble
Spread Factor	80 Minimum
Recommended Soldering Range	93°C/200°F - 315°C/600°F

Safety Precautions:

- Weldcote Liquid Soldering Flux is a corrosive product and should be handled with care and the normal precautions taken when working with chemical products. When soldering with Weldcote Liquid Soldering Flux, adequate exhaust ventilations should be provided.
- Avoid contact with eyes, skin and mucous membranes.
- Always wear NIOSH approved safety equipment when working with chemicals. Store in plastic containers away from heat.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines. Due to the presence of zinc, a heavy metal, disposal of post-solder residues and wash-water must be carried out in accordance with local, state, and/or federal environmental guidelines.
- Refer to SDS for additional safety information.

GENERAL PURPOSE LIQUID SOLDERING FLUX		UPC #	Part #	U/M	Size
Liquid Soldering Flux 4 oz bottle	One Bottle	877511007763	LIQUIDFLUX4OZ	EA	4 Ounce
Liquid Soldering Flux 16 oz bottle		877511007770	LIQUIDFLUX16OZ	EA	16 Ounce
Liquid Soldering Flux 1 gallon bottle		877511007787	LIQUIDFLUX1GL	EA	1 Gallon



WELDCOTE GENERAL PURPOSE SOLDERING PASTE FLUX

(Spec/Classification: Fed Spec O-F 506C, Type 1, Form A & MIL-S-6872A)

Description:

- Weldcote Soldering Paste Flux is a Petrolatum-based soldering paste that contains zinc chloride and ammonium chloride.
- The petrolatum helps protect the solder joint against corrosive attack and the paste form insures that the flux stays put until soldering.

Physical Properties:

Form	Yellow Paste
Specific Gravity	0.95-1.00
Flash Point	285°C (540°F)
Boiling Point	337°C (640°F)
Spread Factor	80 Minimum
Recommended Soldering Range	93°C/200°F - 315°C/600°F

Applications:

- Weldcote Soldering Paste Flux is useful on most common metals.
- It is employed mainly in plumbing and maintenance applications.
- It is not recommended for aluminum and magnesium.

Procedure:

- **Directions:** Weldcote Soldering Paste Flux is generally applied using an acid brush. The flux is active between 93°C/200°F and 315°C/600°F. Although the flux is self-cleaning, it is recommended that the parts first be cleaned with a rough surface. For most applications, the residues can be removed with a damp rag. However, the following cleaning steps must be followed in critical applications. Remove any oil, grease, or other contaminants from the surface to be soldered.
- Degrease with an organic solvent
- Rinse in hot water containing 2% HCl solution
- Use as many hot deionized water rinses as necessary.

Safety Precautions:

- Weldcote Soldering Paste Flux contains Petrolatum, Zinc Chloride and Ammonium Chloride.
- Inhalation of fumes can cause injury to the respiratory tract and skin. In case of external contact, wash with soap and water. For eyes, flush with water for 15 minutes and get immediate medical attention. If swallowed, give plenty of water or milk and call a physician. Keep out of reach of children.
- Do not store near heat, as petrolatum melts at 135°F. Corrosive products should be handled with care and the normal precautions taken when working with chemical products.
- When soldering with Weldcote Soldering Paste Flux, adequate exhaust ventilations should be provided.
- Avoid contact with eyes, skin and mucous membranes. Always wear NIOSH approved safety equipment when working with chemicals. Store in plastic containers away from heat.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines. Due to the presence of zinc, a heavy metal, disposal of post-solder residues and wash-water must be carried out in accordance with local, state, and/or federal environmental guidelines.
- Refer to SDS for additional safety information.

GENERAL PURPOSE SOLDERING PASTE FLUX		UPC #	Part #	U/M	Size
Soldering Paste Flux 4 oz jar	One Jar	877511007794	PASTEFLUX40Z	EA	4 Ounce
Soldering Paste Flux 16 oz jar		877511007800	PASTEFLUX160Z	EA	16 Ounce



WELDCOTE SOLAR FLUX (Type B)

(Spec/Classification: Conforms to Mil-Spec MIL-F-7516B, Classes 2 and 4)

Description:

- Weldcote Solar Flux is a complex chemical compound in the form of a very fine powder.
- Weldcote Solar Flux is mixed with alcohol and brushed on the back of the weld joint.
- It is formulated to shield the BACK of the weld joint from oxygen, dissipate heat and unwanted oxides, and to clean the surface of the metal.

Applications:

- It will aid in the flow of filler metal over base metal and form a protective barrier to prevent re-oxidation and heat scale.
- Type B is for welding stainless steel and alloy steels. Weldcote Solar Flux Type B can be used for pipe and tube welding, maintenance welding, in-field welding, certain specified aircraft airframe and jet engine repairs for all shapes and configurations.
- The shelf life of Type B, that has never been mixed with a mixing fluid, in the closed can, is infinite.

Physical Properties:

Form	Powder
Color	Dark Gray
Specific Gravity	2.2 average
Volatile Content	<0.1%
Flash Point	None
Lower Explosion Limit	None
Humidity Effect	Slight

Safety Precautions:

- Weldcote Solar Flux Type B contains free crystalline silica as a component of silicon dioxide.
- It is primarily a nuisance dust. For eyes, flush with water. If swallowed, give plenty of water or milk and call a physician. Keep out of reach of children. When welding with Weldcote Solar Flux, adequate exhaust ventilations should be provided. Avoid contact with eyes, skin and mucous membranes.
- Always wear NIOSH approved safety equipment when working with chemicals.
- Store in plastic containers away from heat.
- Disposal of raw flux and flux residues must be carried out in accordance with local and federal environmental guidelines. Due to the presence of zinc, a heavy metal, disposal of post-solder residues and wash-water must be carried out in accordance with local, state, and/or federal environmental guidelines.
- Refer to SDS for additional safety information.

SOLAR FLUX	UPC #	Part #	U/M	Size
Solar Flux Type B 1pound cans	812922014856	SOLARFLUXB	EA	1 Pound

WELDCOTE ABRASIVES CATALOG

Available Online:
weldcotemetals.com

Can be Ordered via
 Part #: 199903



POINT OF PURCHASE SMALL PACKAGING - SPECIALTY

One Pound Electrodes - Repair & Maintenance

SMALL PACKAGING

		UPC #	Part #	U/N	Size
NICKEL ELECTRODES					
Ni 55 3/32 Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511006384	NI55332E1P	LB	3/32
Ni 55 1/8 Electrode 1 Pound Tube pkg		877511006810	NI5518E1P	LB	1/8
Ni 99 3/32 Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511006858	NI99332E1P	LB	3/32
Ni 99 1/8 Electrode 1 Pound Tube pkg		877511006865	NI9918E1P	LB	1/8
Ni 99 5/32 Electrode 1 Pound Tube pkg		877511009699	NI99532E1P	LB	5/32

ALUMINUM SMOOTH 340 ELECTRODES

Coated Stick Rod for Fabrication, Maintenance of Repairs of Cast or Wrought Aluminum Base Metals

Aluminum Smooth 340 3/32 Electrode 1/2 Pound Tube pkg	10 x 1 Pound Tubes	877511006896	ALSMOOTH340332P	LB	3/32
Aluminum Smooth 340 1/8 Electrode 1/2 Pound Tube pkg		877511006544	ALSMOOTH34018EP	LB	1/8

SUPER 120 ELECTRODES ALLOYED STEEL ELECTRODES

AKA Stud removal rod - excellent strength and superior ductility and crack resistance on many grades of steels and stainless as well as dissimilar alloys.

Super 120 3/32 Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511008517	SUPER120332E1P	LB	3/32
Super 120 1/8 Electrode 1 Pound Tube pkg		877511008067	SUPER12018E1P	LB	1/8

FLUX-CORED ALUMINUM- TUBULAR ALUMINUM ROD

Tubular aluminum torch rod with a flux filled center that delivers matching properties for filling and build up work on aluminum base metals.

Flux-Cored Aluminum 1/8 x 32" 1 Pound Tube pkg	10 x 1 Pound Tubes	877511009682	FCALUM181P	LB	1/8
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ALUMITE

Zinc alloy torch rod for maintenance and repair on Pot metals, Zinc and Aluminum base metals.

Alumite 1/8 1 Pound Tube pkg	10 x 1 Pound Tubes	877511009514	FCALUM181P	LB	1/8
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CAST IRON ROD FOR OXY-FUEL

Excellent matching gray Cast iron alloy for repair, fabrication and also build up.

Cast Iron Rod for Oxy-Fuel 1/4 x 18" 1 Pound Tube pkg	10 x 1 Pound Tubes	812922010469	CASTIRON14X181P	LB	1/4 x 18"
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POINT OF PURCHASE SMALL PACKAGING - STAINLESS ELECTRODES

		UPC #	Part #	U/N	Size
308L-16					
308L-16 1/16 x 10" Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511006636	308L16116E1P	LB	1/16
308L-16 3/32 x 12" Electrode 1 Pound Tube pkg		877511008456	308L16332E1P	LB	3/32
308L-16 1/8 x 14" Electrode 1 Pound Tube pkg		877511006827	308L1618E1P	LB	1/8
309L-16					
309L-16 3/32 x 12" Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511008937	309L16332E1P	LB	3/32
309L-16 1/8 x 14" Electrode 1 Pound Tube pkg		877511009323	309L1618E1P	LB	1/8
316L-16					
316L-16 3/32 x 12" Electrode 1 Pound Tube pkg	10 x 1 Pound Tubes	877511009330	316L16332E1P	LB	3/32
316L-16 1/8 x 14" Electrode 1 Pound Tube pkg		812922010018	316L1618E1P	LB	1/8

POINT OF PURCHASE SMALL PACKAGING

		UPC #	Part #	U/N	Size
308L					
308L .035 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511009057	308L035X36T1P	LB	.035
308L .045 × 36 1 Pound Tube pkg		877511007220	308L045X36T1P	LB	.045
308L 1/16 × 36 1 Pound Tube pkg		877511005943	308L116X36T1P	LB	1/16
308L 3/32 × 36 1 Pound Tube pkg		877511005967	308L332X36T1P	LB	3/32
308L 1/8 × 36 1 Pound Tube pkg		877511005981	308L18X36T1P	LB	1/8
309L					
309L 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006001	309L116X36T1P	LB	1/16
309L 3/32 × 36 1 Pound Tube pkg		877511006025	309L332X36T1P	LB	3/32
309L 1/8 × 36 1 Pound Tube pkg		877511006049	309L18X36T1P	LB	1/8
316L					
316L .035 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006797	316L035X36T1P	LB	.035
316L .045 × 36 1 Pound Tube pkg		877511007237	316L045X36T1P	LB	.045
316L 1/16 × 36 1 Pound Tube pkg		877511006063	316L116X36T1P	LB	1/16
316L 3/32 × 36 1 Pound Tube pkg		877511006087	316L332X36T1P	LB	3/32
316L 1/8 × 36 1 Pound Tube pkg		877511006100	316L18X36T1P	LB	1/8
4043					
4043 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006124	4043116X36T1P	LB	1/16
4043 3/32 × 36 1 Pound Tube pkg		877511006148	4043332X36T1P	LB	3/32
4043 1/8 × 36 1 Pound Tube pkg		877511006162	404318X36T1P	LB	1/8
5356					
5356 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006186	5356116X36T1P	LB	1/16
5356 3/32 × 36 1 Pound Tube pkg		877511006209	5356332X36T1P	LB	3/32
5356 1/8 × 36 1 Pound Tube pkg		877511006223	535618X36T1P	LB	1/8
ER70S-2					
ER70S-2 .035 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006537	E70S2035X36T1P	LB	.035
ER70S-2 .045 × 36 1 Pound Tube pkg		877511006575	E70S2045X36T1P	LB	.045
ER70S-2 1/16 × 36 1 Pound Tube pkg		877511006131	E70S2116X36T1P	LB	1/16
ER70S-2 3/32 × 36 1 Pound Tube pkg		877511006155	E70S2332X36T1P	LB	3/32
ER70S-2 1/8 × 36 1 Pound Tube pkg		877511006179	E70S218X36T1P	LB	1/8
ER70S-6					
ER70S-6 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006193	E70S6116X36T1P	LB	1/16
ER70S-6 3/32 × 36 1 Pound Tube pkg		877511006216	E70S6332X36T1P	LB	3/32
ER70S-6 1/8 × 36 1 Pound Tube pkg		877511006230	E70S618X36T1P	LB	1/8
LOW FUMING BROZE-BARE					
LFB 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006247	LFB116X36T1P	LB	1/16
LFB 3/32 × 36 1 Pound Tube pkg		877511006254	LFB332X36T1P	LB	3/32
LFB 1/8 × 36 1 Pound Tube pkg		877511006261	LFB18X36T1P	LB	1/8
LOW FUMING BROZE-FLUXCOATED					
LFB FC 3/32 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006278	LFBFC332X36T1P	LB	3/32
LFB FC 1/8 × 36 1 Pound Tube pkg		877511006285	LFBFC18X36T1P	LB	1/8
R45					
R45 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006292	R45116X36T1P	LB	1/16
R45 3/32 × 36 1 Pound Tube pkg		877511006308	R45332X36T1P	LB	3/32
R45 1/8 × 36 1 Pound Tube pkg		877511006315	R4518X36T1P	LB	1/8
R60					
R60 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006322	R60116X36T1P	LB	1/16
R60 3/32 × 36 1 Pound Tube pkg		877511006339	R60332X36T1P	LB	3/32
R60 1/8 × 36 1 Pound Tube pkg		877511006346	R6018X36T1P	LB	1/8
SIB - SILICON BRONZE					
SIB 1/16 × 36 1 Pound Tube pkg	10 × 1 Pound Tubes	877511006353	SIB116X36T1P	LB	1/16
SIB 3/32 × 36 1 Pound Tube pkg		877511006360	SIB332X36T1P	LB	3/32
SIB 1/8 × 36 1 Pound Tube pkg		877511006377	SIB18X36T1P	LB	1/8

MSDS are packaged in each tube. Other types and sizes available upon request including electrodes and small Spools.



weldcote 
safety



ULTRAVIEW PLUS TRUE-COLOR

(High Definition Filter Optics) Digital Auto Darkening Helmet



- ADF Cartridge Size: 114x133x9.5 mm
- LCD Viewing Area: 100x83.4 mm
- 1~CR2450 Lithium Battery Holder



Cartridge



SHADE 3



SHADE 10

New Headgear as Standard



Viewing Size:
100x83.4 mm / 3.94"x3.28"
(12.93 Sq. Inches)



Dark Shade #:
5-9 / 9-13



UV/IR Protection:
Up to DIN15



Warranty:
3 Years



Power Supply:
Solar and CR2450
Battery



Switching Time
(light to dark):
0.08ms

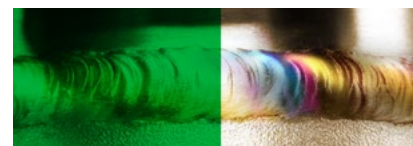
Specifications:

- Inside PC Lens: 106 × 89.5 × 1 mm
- Outside PC Lens: 114 × 133 × 1 mm (4½" × 5¼")
- Filter Cartridge Size: 114 × 133 × 9.5 mm (4½" × 5¼" × 3/8")
- Light Shade Number: 3
- Delay Time (dark to light): 0.1-0.9 s Adjustable
- Sensitivity/Delay: Adjustable
- Arc Sensors: 4
- Grind Function: Yes
- Memory Settings: 3
- Operation Temp: -10°C ~ 65°C (14° F ~ 149° F)
- Weight: 599g

Features:

- Use High Quality LCD and multilayer optical interference filter, provides clear view and permanent UV/IR protection up to DIN 15.
- With 3 memory settings for easy retrieval of preset welding condition.
- Power supply by solar cells, lithium battery (CR2450 replaceable. Part# WCM-CR2450 (2pk))
- Helmet shell made of high impact resistant special Nylon.
- Ample mask space, especially for ears and bottom flare for neck protection.
- **Extra lens provided.**
- CE CN379 (1/2/1/1) & EN175, ANSI Z87.1, CSA Z94.3

True Color:



Part #: ULTRAVIEWPLUSTC

ULTRAVIEW PLUS		UPC #	Part #	U/M
Ultra-View Plus Auto-Darkening Welding Helmet - Digital "True Color"	4 Helmets Per Carton	812922011978	ULTRAVIEWPLUSTC	EA
Ultra-View Plus Replacement Lens Cartridge "True Color" Model XA-5122TD	One Cartridge	0	ULTRAVIEWPCTRT	EA
Ultra-View Inside Cover Lens 5 Pack	5 Lens per Pack / 20 Packs per Box	812922016027	ULTRAVIEWLI	PK
Adjustable Headgear	One Headgear	812922016843	HEADGEARADJ	EA
3 Volt Lithium Battery	2 Batteries per card / 10 cards per box	812922012333	WCM-CR2450	CD
Klear-View Headgear - Adjustable	One Headgear	812922013965	KLEARVIEWHDGA	EA

ULTRAVIEW TRUE-COLOR

(High Definition Filter Optics) Auto Darkening Helmet



- ADF Cartridge Size: 114x133x9.5 mm
- LCD Viewing Area: 100x83.4 mm
- 1~CR2450 Lithium Battery Holder



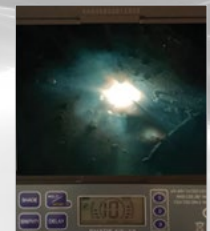
Cartridge



New Headgear as Standard



SHADE 3



SHADE 10

VIEW SITE INCREASES
+39%



Viewing Size:
100x83.4 mm / 3.94"x3.28"
(12.93 Sq. Inches)



Dark Shade #:
5-9 / 9-13



UV/IR Protection:
Up to DIN15



Warranty:
3 Years



Power Supply:
Solar and CR2450
Battery



Switching Time
(light to dark):
0.08ms

Specifications:

- Inside PC Lens: 106 × 89.5 × 1 mm
- Outside PC Lens: 114 × 133 × 1 mm (4½" × 5¼")
- Filter Cartridge Size: 114 × 133 × 9.5 mm (4½" × 5¼" × 3/8")
- Light Shade Number: 3
- Delay Time (dark to light): 0.1-0.9 s Adjustable
- Sensitivity/Delay: Adjustable
- Arc Sensors: 4
- Grind Function: Yes
- Memory Settings: 3
- Operation Temp: -10°C ~ 65°C (14° F ~ 149° F)
- Weight: 604g

Features:

- Use High Quality LCD and multilayer optical interference filter, provides clear view and permanent UV/IR protection up to DIN 15
- Power supply by solar cells, lithium battery (CR2450) replaceable. Part# WCM-CR2450 (2pk)
- Helmet shell made of high impact resistant special Nylon.
- Ample mask space, especially for ears and bottom flare for neck protection.
- **Extra lens provided.**
- CE EN379 (1/2/1/1) & EN175, ANSI Z87.1, CSA Z94.3

True Color:



Part #: ULTRAVIEWTC

ULTRAVIEW		UPC #	Part #	U/M
Ultra-View Auto-Darkening Welding Helmet - Digital "True Color"	4 Helmets Per Carton	812922015372	ULTRAVIEWTC	EA
Ultra-View Inside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922016027	ULTRAVIEWLI	PK
Ultra-View Plus Replacement Lens Cartridge "True Color" Model XA-5122TD	One Cartridge	0	ULTRAVIEWPCTR	EA
Klear-View Headgear - Adjustable	One Headgear	812922013965	KLEARVIEWHDGA	EA

KLEARVIEW PLUS TRUE-COLOR

Digital Auto Darkening Helmet



Viewing Size:
100 × 60 mm
3.94" × 2.36"



Dark Shade #:
9-13



UV/IR Protection:
Up to DIN15



Weight:
550g (1.2 lbs)



Power Supply:
Solar and CR2450
Battery



Switching Time
(light to dark):
0.08ms

Specifications:

- Light Shade Number: 4
- Sensitivity/Delay: Adjustable
- Arc Sensors: 4
- Grind Function: Yes
- Memory Settings: 3
- Operation Temp: -10°C~65°C (14°F~149°F)
- Warranty: 3 Years

Features:

- Use High Quality LCD and multilayer optical interference filter, provide clear view and permanent UV/IR protection up to DIN 15.
- Power supply by solar cells and lithium battery (Replaceable).
- Digital low battery warning indicator.
- Mask made of high impact resistant special Nylon.
- Ample mask space, especially for ears and neck.
- Adapter for plastic magnifying lens.
- Hardhat adapter available: Part #: HHADAPTER.
- CE EN 379, ANSI Z87.1, CSA Z94.3

Packing:

- Each in color box, 4 pieces in a carton.
- 1 Operation manual per helmet.
- **2 Outer protection lens.**

Part #: KLEARVIEWPLUSTC

KLEARVIEW PLUS		UPC #	Part #	U/M
Klear-View Plus Auto-Darkening Welding Helmet - Digital "True Color"	4 Helmets Per Carton	812922014313	KLEARVIEWPLUSTC	EA
Klear-View Inside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922012784	KLEARVIEWLI	PK
Klear-View Outside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922012791	KLEARVIEWLO	PK
Klear-View Replacement Lens Cartridge - "True Color"	One Cartridge	0	KLEARVIEWCTRTC	EA
Adjustable Headgear	One Headgear	812922016843	HEADGEARADJ	EA
Klear-View Plus Replacement Lens Cartridge - "True Color"	One Cartridge	0	KLEARVIEWPCTRTC	EA
3 Volt Lithium Battery	2 Batteries per card / 10 cards per box	812922012333	WCM-CR2450	CD

KLEARVIEW TRUE-COLOR

Auto Darkening Helmet



New Headgear
as Standard



ADF Cartridge Size: 114x133x9.5 mm
LCD Viewing Area: 100x60 mm
2~CR2450 Lithium
Battery Cover Plate

Cartridge



Viewing Size:
100 × 60 mm
3.94" × 2.36"



Dark Shade #:
9-13



UV/IR Protection:
Up to DIN15



Weight:
550g (1.2 lbs)



Power Supply:
Solar and CR2450
Battery



Switching Time
(light to dark):
0.08ms

Specifications:

- Light Shade Number: 4
- Sensitivity/Delay: Adjustable
- Arc Sensors: 4
- Grind Function: Yes
- Memory Settings: 3
- Operation Temp: -10°C~65°C (14°F~149°F)
- Warranty: 3 Years

Part #: KLEARVIEWTC

Features:

- Use High Quality LCD and multilayer optical interference filter, provide clear view and permanent UV/IR protection up to DIN 15.
- Power supply by solar cells and lithium battery (Replaceable).
- Mask made of high impact resistant special Nylon.
- Ample mask space, especially for ears and neck.
- Adapter for plastic magnifying lens.
- Hardhat adapter available: Part #: HHADAPTER.
- CE EN 379, ANSI Z87.1, CSA Z94.3

Packing:

- Each in color box, 4 pieces in a carton.
- 1 Operation manual per helmet.
- **2 Outer protection lens.**

KLEARVIEW		UPC #	Part #	U/M
Klear-View Auto-Darkening Welding Helmet "True Color"	4 Helmets Per Carton	812922014290	KLEARVIEWTC	EA
Klear-View Inside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922012784	KLEARVIEWLI	PK
Klear-View Outside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922012791	KLEARVIEWLO	PK
Klear-View Replacement Lens Cartridge - "True Color"	One Cartridge	0	KLEARVIEWCTRTC	EA
Adjustable Headgear	One Headgear	812922016843	HEADGEARADJ	EA
Klear-View Plus Replacement Lens Cartridge - "True Color"	One Cartridge	0	KLEARVIEWPCTRTC	EA
3 Volt Lithium Battery	2 Batteries per card / 10 cards per box	812922012333	WCM-CR2450	CD

KWIKVIEW TRUE-COLOR

Auto Darkening Helmet



New Headgear
as Standard



- ADF Cartridge Size: 110x90x8.5 mm
- LCD Viewing Area: 96x42 mm



1 Built-In CR2450
Lithium Battery
as Power Back-Up



Cartridge



Viewing Size:
96 x 42 mm



Dark Shade #:
9-13



UV/IR Protection:
Up to DIN15



Weight:
530g



Power Supply:
Solar and 2 lithium
Batteries



Switching Time
(light to dark):
0.01-0.09ms

Specifications:

- Light Shade Number: 4
- Sensitivity/Delay: Adjustable
- Arc Sensors: 4
- Grind Function: Yes
- Memory Settings: 3
- Operation Temp: -10°C ~ 55°C (14° F ~ 131° F)
- Warranty: 3 Years

Features:

- Equipped with continuous darkness - adjusting unit (knob) on the outside of the helmet.
- Ratchet headgear and sweatband.
- Meets ANSI Z87.1

Part #: KWIKVIEWTC

KWIKVIEW		UPC #	Part #	U/M
Kwik-View Auto-Darkening Welding Helmet "True Color"	4 Helmets Per Carton	812922014276	KWIKVIEWTC	EA
Kwik-View Inside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922011282	KWIKVIEWLI	PK
Kwik-View Outside Cover Lens 5 Pack	5 Lens Per Pack 20 Packs Per Box	812922011299	KWIKVIEWLO	PK
Kwik-View Replacement Lens Cartridge - "True Color"	One Cartridge	0	KWIKVIEWCTRTC	EA
Adjustable Headgear	One Headgear	812922016843	HEADGEARADJ	EA
3 Volt Lithium Battery	2 Batteries per card / 10 cards per box	812922012333	WCM-CR2450	CD



ADJUSTABLE HEADGEAR

NEW

- Interchangeable for all Ultraview and Klearview Helmets
- Redesigned headgear with comfort cushion and ratchet that provides adjustability settings and enhanced support

		UPC #	Part #	
Adjustable Headgear	One Headgear	812922016843	HEADGEARADJ	EA



KLEAR-VIEW HEADGEAR-ADJUSTABLE

		UPC #	Part #	U/M
Klear-View Headgear-Adjustable	One Headgear	812922013965	KLEARVIEWHDGA	EA



HARD HAT ADAPTER

Fits all Weldcote Metals' Auto-Darkening Helmets!

		UPC #	Part #	U/M
Hard Hat Adapter	One Adapter	812922015648	HHADAPTER	EA



HELMET BAG

		UPC #	Part #	U/M
Helmet Bag	One Bag	812922015389	HELMETBAG	EA



3 VOLT LITHIUM BATTERY

Cr2450 3 Volt Lithium Battery 2 Pack

		UPC #	Part #	U/M
3 Volt Lithium Battery	2 Batteries per card 10 cards per box	812922012333	WCM-CR2450	CD

FIXED FRONT / FLIP FRONT HELMETS

Passive Welding Helmets



		UPC #	Part #	U/M
Fixed Front Welding Helmet 2" x 4 1/4"	8 Helmets Per Carton	812922014344	WHFIXEDF2X4	EA
Fixed Front Welding Helmet 4 1/2" x 5 1/4"		812922014351	WHFIXEDF4X5	EA
Flip Front Welding Helmet 2" x 4 1/4"	4 Helmets Per Carton	812922014368	WHFLIPF2X4	EA
Flip Front Welding Helmet 4 1/2" x 5 1/4"		812922014375	WHFLIPF4X5	EA

LENSES

(All WeldCote Lenses Meet or Exceed ANSI Z87.1 Specifications)

PLASTIC COVER LENS



Contains Cr-39® Monomer

		UPC #	Part #	U/M	Size
2" x 4 1/4" Cover Lens	100 Lens per Box / 500 Case	877511002706	CVRENS2X4	EA	2" x 4 1/4"
4 1/2" x 5 1/4" Cover Lens	50 Lens per Box / 200 Case	877511002713	CVRENS4X5	EA	4 1/2" x 5 1/4"

SAFETY LENS

Designed to protect welders' eyes when flip-front is lifted



		UPC #	Part #	U/M	Size
Safety Lens 2" x 4 1/4"	100 Lens per Box / 1000 Case	877511004700	SAFETYLENS2X4	EA	2" x 4 1/4"
Safety Lens 4 1/2" x 5 1/4"	50 Lens per Box / 500 Case	877511004717	SAFETYLENS4X5	EA	4 1/2" x 5 1/4"
*Only Sold in Standard Box					
Safety Lens 2" x 4 1/4" 5 Pack		0	SAFETYLENS2X4P	EA	2" x 4 1/4"
Safety Lens 4 1/2" x 5 1/4" 5 Pack		0	SAFETYLENS4X5P	EA	4 1/2" x 5 1/4"

PLAIN GLASS

		UPC #	Part #	U/M	Size
Plain Glass 2" x 4 1/4"	100 Lens per Box / 500 Case	877511003321	PLAINGLASS2X4	EA	2" x 4 1/4"
Plain Glass 4 1/2" x 5 1/4"	50 Lens per Box / 200 Case	877511003338	PLAINGLASS4X5	EA	4 1/2" x 5 1/4"

HEAT TREATED FILTER LENS-GLASS



		UPC #	Part #	U/M	
Filter Lens 2" x 4 1/4" Shade 3	50 Lenses per Box	877511002720	FLENS2X4SH3	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 4		877511002737	FLENS2X4SH4	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 5		877511002744	FLENS2X4SH5	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 6		877511002751	FLENS2X4SH6	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 7		877511002768	FLENS2X4SH7	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 8		877511002775	FLENS2X4SH8	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 9		877511002782	FLENS2X4SH9	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 10		877511002799	FLENS2X4SH10	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 11		877511002805	FLENS2X4SH11	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 12		877511002812	FLENS2X4SH12	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 13		877511002829	FLENS2X4SH13	EA	2" x 4 1/4"
Filter Lens 2" x 4 1/4" Shade 14		877511002836	FLENS2X4SH14	EA	2" x 4 1/4"

*Only Sold in Standard Box

Filter Lens 4 1/2" x 5 1/4" Shade 3	15 Lenses per Box	877511002843	FLENS4X5SH3	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 4		877511002850	FLENS4X5SH4	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 5		877511002867	FLENS4X5SH5	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 6		877511002874	FLENS4X5SH6	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 7		877511002881	FLENS4X5SH7	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 8		877511002898	FLENS4X5SH8	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 9		877511002904	FLENS4X5SH9	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 10		877511002911	FLENS4X5SH10	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 11		877511002928	FLENS4X5SH11	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 12		877511002935	FLENS4X5SH12	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 13		877511002942	FLENS4X5SH13	EA	4 1/2" x 5 1/4"
Filter Lens 4 1/2" x 5 1/4" Shade 14		877511002959	FLENS4X5SH14	EA	4 1/2" x 5 1/4"

GOLD PLATED PLASTIC FILTER LENS



		UPC #	Part #	U/M	
Gold Plastic Lens 2" x 4 1/4" Shade 8	50 Lenses per Box	877511003062	GLDPLENS2X4SH8	EA	2" x 4 1/4"
Gold Plastic Lens 2" x 4 1/4" Shade 9		877511003079	GLDPLENS2X4SH9	EA	2" x 4 1/4"
Gold Plastic Lens 2" x 4 1/4" Shade 10		877511003086	GLDPLENS2X4SH10	EA	2" x 4 1/4"
Gold Plastic Lens 2" x 4 1/4" Shade 11		877511003093	GLDPLENS2X4SH11	EA	2" x 4 1/4"
Gold Plastic Lens 2" x 4 1/4" Shade 12		877511003109	GLDPLENS2X4SH12	EA	2" x 4 1/4"
Gold Plastic Lens 4 1/2" x 5 1/4" Shade 8	15 Lenses per Box	877511003116	GLDPLENS4X5SH8	EA	4 1/2" x 5 1/4"
Gold Plastic Lens 4 1/2" x 5 1/4" Shade 9		877511003123	GLDPLENS4X5SH9	EA	4 1/2" x 5 1/4"
Gold Plastic Lens 4 1/2" x 5 1/4" Shade 10		877511003130	GLDPLENS4X5SH10	EA	4 1/2" x 5 1/4"
Gold Plastic Lens 4 1/2" x 5 1/4" Shade 11		877511003147	GLDPLENS4X5SH11	EA	4 1/2" x 5 1/4"
Gold Plastic Lens 4 1/2" x 5 1/4" Shade 12		877511003154	GLDPLENS4X5SH12	EA	4 1/2" x 5 1/4"

LENSES

MAGNIFYING LENS-GLASS



		UPC #	Part #	U/M	
.75 Glass Mag Lens 2"x4 1/4"	6 Pair per Box	877511003161	GLMAGLENS2X475	PR	2"x4 1/4" - diopter .75
1.00 Glass Mag Lens 2"x4 1/4"		877511003178	GLMAGLENS2X4100	PR	2"x4 1/4" - diopter 1.00
1.25 Glass Mag Lens 2"x4 1/4"		877511003185	GLMAGLENS2X4125	PR	2"x4 1/4" - diopter 1.25
1.50 Glass Mag Lens 2"x4 1/4"		877511003192	GLMAGLENS2X4150	PR	2"x4 1/4" - diopter 1.50
1.75 Glass Mag Lens 2"x4 1/4"		877511003208	GLMAGLENS2X4175	PR	2"x4 1/4" - diopter 1.75
2.00 Glass Mag Lens 2"x4 1/4"		877511003215	GLMAGLENS2X4200	PR	2"x4 1/4" - diopter 2.00
2.25 Glass Mag Lens 2"x4 1/4"		877511003222	GLMAGLENS2X4225	PR	2"x4 1/4" - diopter 2.25
2.50 Glass Mag Lens 2"x4 1/4"		877511003239	GLMAGLENS2X4250	PR	2"x4 1/4" - diopter 2.50
3.00 Glass Mag Lens 2"x4 1/4"		877511003246	GLMAGLENS2X4300	PR	2"x4 1/4" - diopter 3.00

*Only Sold in Standard Box

MAGNIFYING LENS-PLASTIC



		UPC #	Part #	U/M	
1.00 Plastic Mag 2"x4 1/4"	6 Pair per Box	877511003253	PLMAGLENS2X4100	PR	2"x4 1/4" - diopter 1.00
1.25 Plastic Mag 2"x4 1/4"		877511003260	PLMAGLENS2X4125	PR	2"x4 1/4" - diopter 1.25
1.50 Plastic Mag 2"x4 1/4"		877511003277	PLMAGLENS2X4150	PR	2"x4 1/4" - diopter 1.50
1.75 Plastic Mag 2"x4 1/4"		877511003284	PLMAGLENS2X4175	PR	2"x4 1/4" - diopter 1.75
2.00 Plastic Mag 2"x4 1/4"		877511003291	PLMAGLENS2X4200	PR	2"x4 1/4" - diopter 2.00
2.25 Plastic Mag 2"x4 1/4"		877511003307	PLMAGLENS2X4225	PR	2"x4 1/4" - diopter 2.25
2.50 Plastic Mag 2"x4 1/4"		877511003314	PLMAGLENS2X4250	PR	2"x4 1/4" - diopter 2.50

REPLACEMENT LENS For Hornell™ 9000 Series Helmet



		UPC #	Part #	U/M
Replacement Lens-Hornell™ 9000 Outside Lens 10 Pack	10 Lens per Pack 50 Packs per Case	877511003369	HORNELL9000	PK

*Outside lens for Hornell™ 9000 Series Helmet, Hornell™ Part #: 04-0270-00



		UPC #	Part #	U/M
Replacement Lens-Hornell™ 9000F Inside Lens 5 Pack	5 Lens per Pack 50 Packs per Case	877511003376	HORNELL9000F	PK

*Inside lens for Hornell™ 9000F & V Helmet, Hornell™ Part #: 04-0290-00



		UPC #	Part #	U/M
Replacement Lens-Hornell™ 9000X Inside Lens 5 Pack	5 Lens per Pack 50 Packs per Case	877511003383	HORNELL9000X	PK

*Inside lens for Hornell™ 9000X & XF Helmets, Hornell™ Part #: 04-0280-00

Miller™ STYLE REPLACEMENT LENS

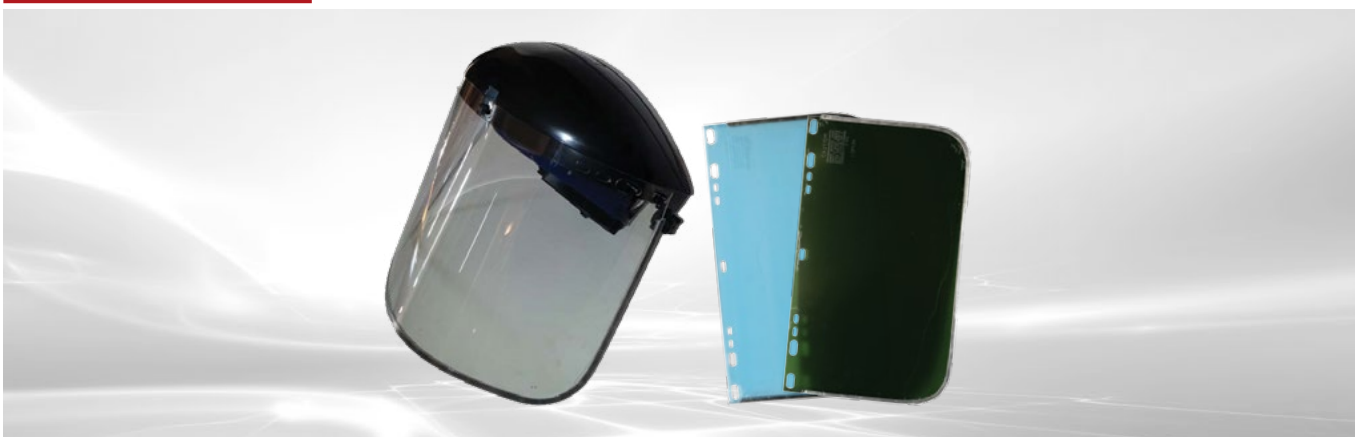


OUTSIDE COVER LENS		UPC #	Part #	U/M	Size
4 1 ¹ / ₁₆ " x 5 ⁵ / ₈ " 5 Pack	5 Lens per Pack / 50 Packs per Case	812922011305	WLENS216326	PK	4 ¹ / ₁₆ " x 5 ⁵ / ₈ "
4 1 ¹ / ₂ " x 5" 5 Pack	5 Lens per Pack / 20 Packs per Case	812922011329	WLENS231921	PK	4 ¹ / ₂ " x 5"
4 1 ¹ / ₂ " x 3 ³ / ₄ " 5 Pack	5 Lens per Pack / 20 Packs per Case	812922011343	WLENS231411	PK	4 ¹ / ₂ " x 3 ³ / ₄ "



INSIDE COVER LENS		UPC #	Part #	U/M	Size
4 3 ³ / ₁₆ " x 2 ¹ / ₂ " 5 Pack	5 Lens per Pack / 50 Packs per Case	812922011312	WLENS216327	PK	4 ³ / ₁₆ " x 2 ¹ / ₂ "
4 1 ¹ / ₄ " x 2" 5 Pack	5 Lens per Pack / 50 Packs per Case	812922011336	WLENS770237	PK	4 ¹ / ₄ " x 2"
4 1 ¹ / ₄ " x 1 ³ / ₄ " 5 Pack	5 Lens per Pack / 50 Packs per Case	812922011350	WLENS231410	PK	4 ¹ / ₄ " x 1 ³ / ₄ "

FACESHIELDS



		UPC #	Part #	U/M
Visor-Header Card and Polybag		812922014528	WHG01	EA
Faceshield-Banded Clear 9" x 15 ¹ / ₂ " Bulk Pkg	10 per Box / 50 per mst Carton	812922014559	BC9X155	EA
Faceshield-Banded Dark Green 9" x 15 ¹ / ₂ " Bulk Pkg	10 per Box / 50 per mst Carton	812922014573	BDG9X155	EA
Faceshield-Banded Clear 9" x 15 ¹ / ₂ " POP Pkg		812922014566	BC9X155P	EA
Faceshield-Banded Dark Green 9" x 15 ¹ / ₂ " POP Pkg		812922014580	BDG9X155P	EA

GLOVES

Weldcote Metals Glove Line Offers Welding Professionals Some the Most Robust and Comfortable Gloves on the Market.

TIG GLOVES - WCM10

- Kevlar® Stitching Adds Seam Strength and Resists Heat.
- Wing Thumb; Seamless Forefinger for Comfort.
- Top Grain Goatskin with 4" Split Leather Cuff.
- Outstanding Durability for General TIG Use.
- Unlined for Maximum Dexterity.



		UPC #	Part #	U/M
TIG Glove, Grain Goatskin/Split Cowhide, Kevlar® Thread Small	1 Dozen Pair per PolyBag	812922015624	WCM10S	PR
TIG Glove, Grain Goatskin/Split Cowhide Kevlar® Thread Medium		812922015631	WCM10M	PR
TIG Glove, Grain Goatskin/Split Cowhide Kevlar® Thread Large		812922015648	WCM10L	PR
TIG Glove, Grain Goatskin/Split Cowhide Kevlar® Thread X-Large		812922015655	WCM10XL	PR

Only Sold in Standard Carton

TIG GLOVES - WCM15

- Premium Top Grain Kidskin for Soft and Supple Comfort.
- Kevlar® Stitching Adds Seam Strength and Resists Heat.
- Straight Thumb for Best Gun Grip.
- Unlined for Maximum Dexterity.
- Superior feel and control.



		UPC #	Part #	U/M
TIG Glove, High-Dexterity/Grain Goatskin/Split Cowhide, Kevlar® Thread MED	6 Pair per PolyBag	812922015679	WCM15M	PR
TIG Glove, High-Dexterity/Grain Goatskin/Split Cowhide, Kevlar® Thread LRG		812922015686	WCM15L	PR
TIG Glove, High-Dexterity/Grain Goatskin/Split Cowhide, Kevlar® Thread X-L		812922015693	WCM15XL	PR

Only Sold in Standard Carton

WELDERS GLOVES, INSULATED - WCM20

- Kevlar® Stitching Adds Seam Strength and Resists Heat.
- Reinforced Wing Thumb to Maximize Wear Protection.
- Durable Weltped Fingers for Added Burn Protection.
- Cotton/Foam Lined for Added Heat Protection.
- Durable, Blue Select Shoulder Split Cowhide.



		UPC #	Part #	U/M
Welders Glove, Cushion Lined/Kevlar® Stitched Large	1 Dozen Pair per PolyBag	812922015716	WCM20L	PR
Welders Glove, Cushion Lined/Kevlar® Stitched X-Large		812922015723	WCM20XL	PR

Only Sold in Standard Carton

WORK GLOVES - WCM30

- Slightly Select Shoulder Split Cowhide.
- Palm and Fingers with Canvas Back.
- Cotton Lined Palm with Unlined Back.
- 2½" Rubberized Safety Cuff.



		UPC #	Part #	U/M
Work Glove, Split Cowhide Medium	1 Dozen Pair per PolyBag	812922015747	WCM30M	PR
Work Glove, Split Cowhide Large		812922015754	WCM30L	PR
Work Glove, Split Cowhide X-Large		812922015761	WCM30XL	PR

Only Sold in Standard Carton

DRIVERS GLOVES - WCM40

- Top Grain Cowhide Palm with Split Cowhide Back.
- Elastic Wrist Band for Snug and Secure Fit.
- Articulation & Comfort.
- Double Stitched Forefinger for Added Strength.
- Ergonomic Keystone Thumb for Exceptional.



		UPC #	Part #	U/M
Drivers Glove, Split Cowhide/Grain Cowhide Small	1 Dozen Pair per PolyBag	812922015778	WCM40S	PR
Drivers Glove, Split Cowhide/Grain Cowhide Medium		812922015785	WCM40M	PR
Drivers Glove, Split Cowhide/Grain Cowhide Large		812922015792	WCM40L	PR
Drivers Glove, Split Cowhide/Grain Cowhide X-Large		812922015808	WCM40XL	PR

Only Sold in Standard Carton

MIG GLOVES - WCM50

- Split Cowhide Reinforced Palm and Thumb; Kevlar® Stitching
- Kevlar® Stitching Adds Seam Strength and Resists Heat
- Top Grain Cowhide Palm with Split Cowhide Back
- Top Grain Seamless Index Finger for Best Feel
- Fleece Lined for Added Insulation in Hot or Cold Conditions without Bulk



		UPC #	Part #	U/M
Mig Welding Glove, Goatskin / Split Cowhide Kevlar® Thread MED	6 Pair per PolyBag	812922015822	WCM50M	PR
Mig Welding Glove, Goatskin / Split Cowhide Kevlar® Thread LRG		812922015839	WCM50L	PR
Mig Welding Glove, Goatskin / Split Cowhide Kevlar® Thread X-L		812922015846	WCM50XL	PR

Only Sold in Standard Carton

MIG GLOVES - WCM55

- Straight Thumb; Thumb Strap Reinforced for Best Gun Grip.
- Kevlar® Stitching Adds Seam Strength and Resists Heat.
- Enhanced Feel; Great in Wet and Oily Conditions.
- Top Grain Pigskin with 4" Split Leather Cuff.
- Unlined Palm for Dexterity and Foam Lined.
- Back for Added Heat Protection.



		UPC #	Part #	U/M
Welding Glove Leather, Grain Pigskin / Split Cowhide Kevlar® Thread MED	6 Pair per PolyBag	812922015860	WCM55M	PR
Welding Glove Leather, Grain Pigskin / Split Cowhide Kevlar® Thread LRG		812922015877	WCM55L	PR
Welding Glove Leather, Grain Pigskin / Split Cowhide Kevlar® Thread X-L		81292201588	WCM55XL	PR

Only Sold in Standard Carton

MIG GLOVES - WCM58

- Outstanding Durability for General MIG Use and Handling
- Kevlar® Stitching Adds Seam Strength and Resists Heat
- Heavy Duty Top Grain Cowhide with 4" Split Leather Cuff
- Wing Thumb; Seamless Forefinger for Comfort
- Unlined for Maximum Dexterity



		UPC #	Part #	U/M
Mig Glove, Grain Cowhide Kevlar® Thread MED	1 Dozen Pair per PolyBag	812922015907	WCM58M	PR
Mig Glove, Grain Cowhide Kevlar® Thread LRG		812922015914	WCM58L	PR
Mig Glove, Grain Cowhide Kevlar® Thread X-L		812922015921	WCM58XL	PR

Only Sold in Standard Carton

PERFORMANCE GLOVES - WCM60

- Reinforced Palm and Thumb for Gripping and Longer Life.
- Top Grain Goatskin Palm and Fingers with Spandex Back.
- Leather Side Bolsters add Additional Protection.
- Unlined for Best Fit, Dexterity and Comfort.
- Elastic Cuff with Hook and Loop Closure.



		UPC #	Part #	U/M
Grain Goatskin Glove, Snug Spandex Fit MED	1 Dozen Pair per PolyBag	812922015945	WCM60M	PR
Grain Goatskin Glove, Snug Spandex Fit LRG		812922015952	WCM60L	PR
Grain Goatskin Glove, Snug Spandex Fit X-L		812922015969	WCM60XL	PR

Only Sold in Standard Carton

weldcote
Tools



WELDING HOSE



TWIN HOSE GRADE R BB FITTINGS		UPC #	Part #	U/M
Twin Hose Grade R 1/4 x 12 1/2' BB Fittings	20 Sections per Carton	812922013637	14RX12	EA
Twin Hose Grade R 1/4 x 25' BB Fittings	10 Sections per Carton	812922013644	14RX25	EA
Twin Hose Grade R 1/4 x 50' BB Fittings	5 Sections per Carton	812922013651	14RX50	EA
Twin Hose Grade R 1/4 x 100' BB Fittings	3 Sections per Carton	812922013668	14RX100	EA
Twin Hose Grade R 1/4 Reel-600 ft.	1 Reel	812922013675	14RX600REEL	EA
Twin Hose Grade R 3/16 x 12 1/2' BB Fittings	20 Sections per Carton	812922013682	316RX12	EA
Twin Hose Grade R 3/16 x 25' BB Fittings	10 Sections per Carton	812922013699	316RX25	EA
Twin Hose Grade R 3/16 x 50' BB Fittings	5 Sections per Carton	812922013705	316RX50	EA
Twin Hose Grade R 3/16 x 100' BB Fittings	3 Sections per Carton	812922013712	316RX100	EA
Twin Hose Grade R 3/16 Reel-600 ft.	1 Reel	812922013729	316RX600REEL	EA
Twin Hose Grade R 3/8 x 100' BB Fittings	3 Sections per Carton	812922013750	38RX100	EA



TWIN HOSE GRADE T BB FITTINGS		UPC #	Part #	U/M
Twin Hose Grade T 1/4 x 25' BB Fittings	10 Sections per Carton	812922013767	14TX25	EA
Twin Hose Grade T 1/4 x 50' BB Fittings	5 Sections per Carton	812922013774	14TX50	EA
Twin Hose Grade T 1/4 x 100' BB Fittings	3 Sections per Carton	812922013781	14TX100	EA
Twin Hose Grade T 1/4 Reel-600 ft.	1 Reel	812922013798	14TX600REEL	EA
Twin Hose Grade T 3/16 x 12 1/2' BB Fittings	20 Sections per Carton	812922013804	316TX12	EA
Twin Hose Grade T 3/16 x 25' BB Fittings	10 Sections per Carton	812922013811	316TX25	EA
Twin Hose Grade T 3/16 x 50' BB Fittings	5 Sections per Carton	812922013828	316TX50	EA
Twin Hose Grade T 3/16 x 100' BB Fittings	3 Sections per Carton	812922013835	316TX100	EA
Twin Hose Grade T 3/8 x 25' BB Fittings	10 Sections per Carton	812922013842	38TX25	EA
Twin Hose Grade T 3/8 x 50' BB Fittings	5 Sections per Carton	812922013859	38TX50	EA
Twin Hose Grade T 3/8 x 100' BB Fittings	3 Sections per Carton	812922013866	38TX100	EA



HOSE ARGON INERT GAS FITTINGS		UPC #	Part #	U/M
Hose, - Argon - 6' w/Inert Gas Fitting	50 Sections per Carton	812922015860	ARG14X6	EA
Hose, - Argon - 10' w/Inert Gas Fitting	30 Sections per Carton	812922013873	ARG14X10	EA
Hose, - Argon - 25' w/Inert Gas Fitting	20 Sections per Carton	812922013880	ARG14X25	EA
Hose, - Argon - 50' w/Inert Gas Fitting	10 Sections per Carton	812922015136	ARG14X50	EA
Hose, - Argon - 100' w/Inert Gas Fitting	5 Sections per Carton	812922015143	ARG14X100	EA



SINGLE HOSE GRADE R		UPC #	Part #	U/M
Hose, Single - Grade R - Reel 1/4 Reel FT Green (Oxygen) 800 ft.	1 Reel	812922013897	14SOX800REEL	EA
Hose, Single - Grade R - Reel 1/4 Reel FT Red (fuel Gas) 800 ft.	1 Reel	812922013903	14SFX800REEL	EA

HOSE REPAIR KITS



	UPC #	Part #	U/M
Hose Repair Kit, B Size Fittings	812922014054	RK-24-WCM	EA
Hose Repair Kit	812922014061	RK-26-WCM	EA
Hose Repair Kit, A&B Size Fittings	812922014078	RK-27-WCM	EA

HOSE REELS



	UPC #	Part #	U/M
Twin Welding Hose Reel - with 50' of 1/4" Grade R Twin Hose Retractable	812922013910	HRR14R50	EA
Twin Welding Hose Reel - with 50' of 1/4" Grade T Twin Hose Retractable	812922013927	HRR14T50	EA
Twin Welding Hose Reel - with 100' of 1/4" Grade T Twin Hose Retractable	812922013552	HRR14T100	EA
Empty Welding Hose Reel for 100' Hose-Manual	812922013934	HRMWOT	EA
Retractable Air Hose Reel 3/8" x 50'	812922015297	AIRHRR50	EA
Retractable Air Hose Reel 3/8" x 100'	812922015303	AIRHRR100	EA

FLASH ARRESTOR SETS

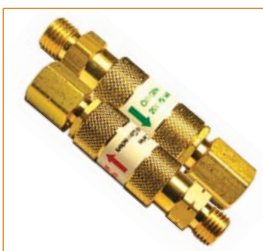


Flashback Arrestors are safety equipment devices that stop or impedes the reverse flow of a flashback.

- Built in check valve to prevent reverse flow of gas
- Fits all 9/16"-18" size regulators and torches
- Bronze sintered element stops multiple flashes
- U/L Listed
- High flow capacity
- 100% flame and leak tested

	UPC #	Part #	U/M
B-Size, Reg Flash Arrestor Set	812922014030	FBK-100-WCM	EA
B-Size, Torch Flash Arrestor Set	812922014047	FBK-200-WCM	EA

QUICK CONNECT SETS



Quick Connectors provide fast, reliable, positive connections and disconnections for hoses, torches and regulators.

- Built in demand valve opens when positive connection is made and instant closure on reverse flow with total shutoff.
- Fits all 9/16"-18" size torches, regulators and hoses.
- Cannot interchange oxygen with fuel
- UL Listed
- 200 psig maximum operating pressure

	UPC #	Part #	U/M
Torch Style Quick Connect Set	812922015907	QCT-100-WCM	EA
Regulator Style Quick Connect Set	812922015891	QCR-200-WCM	EA

CYLINDER CAPS For High Pressure and Acetylene



Cylinder Caps for High Pressure and Acetylene.

- Cylinder caps are sprayed with a primer to prevent rusting.
- All Weldcote Metals' Cylinder Caps are stamped longitudinally "TC/DOT/ISO" to certify compliance to all three codes.

	UPC #	Part #	U/M
Cylinder Cap-Acetylene Coarse 3½×8	877511004557	CYLCAPAC312X8	EA
Cylinder Cap-Acetylene Fine 3½×11	877511004564	CYLCAPAF312X11	EA
Cylinder Cap-HPOxygen Coarse 3½×7	877511004571	CYLCAPOC318X7	EA
Cylinder Cap-HPOxygen Fine 3½×11	877511004588	CYLCAPOF318X11	EA

Only sold in standard cases

PRESSURE GAUGES

Brass and Steel Painted Brass

All Weldcote Metals' Pressure Gauges are UL or RU Listed



BRASS PRESSURE GAUGES		UPC #	Part #	U/M
Gauge 1½" × 100 Psi	10 Gauges per Box	877511004120	GAUGE112X100	EA
Gauge 1½" × 200 Psi		877511004137	GAUGE112X200	EA
Gauge 1½" × 30 Psi Red Line		877511004144	GAUGE112X30	EA
Gauge 1½" × 400 Psi		877511004151	GAUGE112X400	EA
Gauge 1½" × 4000 Psi		877511004168	GAUGE112X4000	EA
Gauge 2" × 100 Psi		877511004175	GAUGE2X100	EA
Gauge 2" × 200 Psi		877511004182	GAUGE2X200	EA
Gauge 2" × 30 Psi Red Line		877511004199	GAUGE2X30	EA
Gauge 2" × 400 Psi		877511004205	GAUGE2X400	EA
Gauge 2" × 4000 Psi U.L.		877511004212	GAUGE2X4000	EA
Gauge 2½" × 100 Psi		877511004229	GAUGE212X100	EA
Gauge 2½" × 200 Psi		877511004236	GAUGE212X200	EA
Gauge 2½" × 30 Psi Red Line		877511004243	GAUGE212X30	EA
Gauge 2½" × 400 Psi		877511004250	GAUGE212X400	EA
Gauge 2½" × 4000 Psi U.L.		877511004267	GAUGE212X4000	EA
Gauge Replacement Cover 2"		877511004281	GAUGE2XVR2	EA
Flow Gauge 2" Brass Case NEW	812922015440	FLOWGAUGE2	EA	



STEEL/BRASS PLATED PRESSURE GAUGES		UPC #	Part #	U/M
Gauge 1½" × 4000 Psi	10 Gauges per Box	812922012623	GAUGE112X4000S	EA
Gauge 2" × 100 Psi		812922012630	GAUGE2X100S	EA
Gauge 2" × 200 Psi		812922012647	GAUGE2X200S	EA
Gauge 2" × 30 Psi Red Line		812922012654	GAUGE2X30S	EA
Gauge 2" × 400 Psi		812922012661	GAUGE2X400S	EA
Gauge 2" × 4000 Psi U.L.		812922012678	GAUGE2X4000S	EA
Gauge 2½" × 100 Psi		812922012685	GAUGE212X100S	EA
Gauge 2½" × 200 Psi		812922012692	GAUGE212X200S	EA
Gauge 2½" × 30 Psi Red Line		812922012708	GAUGE212X30S	EA
Gauge 2½" × 400 Psi		812922012715	GAUGE212X400S	EA
Gauge 2½" × 4000 Psi U.L.		812922012722	GAUGE212X4000S	EA
Flow Gauge 2" Steel Case NEW		812922015471	FLOWGAUGE2S	EA

CABLE CONNECTORS



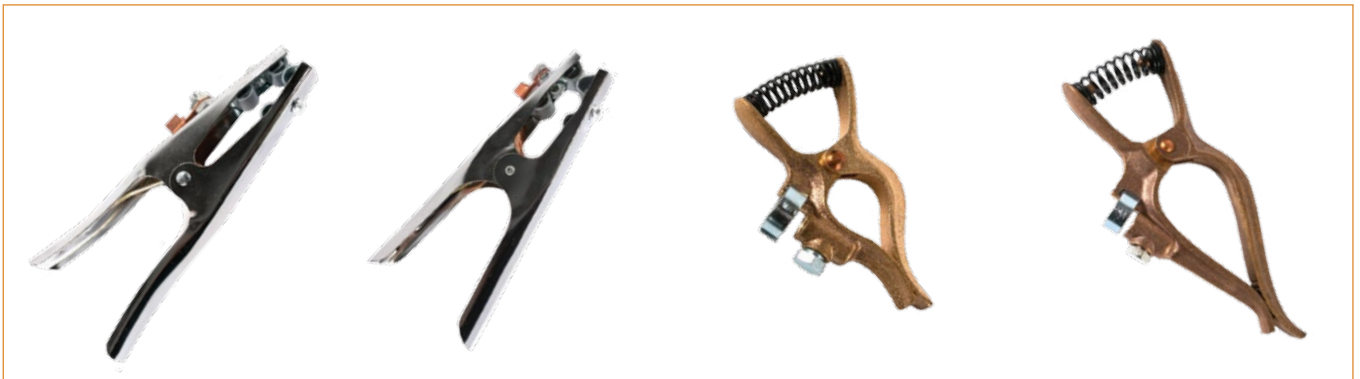
		UPC #	Part #	U/M
Cable Connector 102M	One per Box	877511003963	CONNECTOR102M	EA
Cable Connector 300 amp		877511004687	CCONN300AMP	EA
Cable Connector 500 amp		877511004694	CCONN500AMP	EA

ELECTRODE HOLDERS



		UPC #	Part #	U/M	Size
Electrode Holder 200amp	One per Box	877511004311	ELECHLDR200AMP	EA	200 amp
Electrode Holder 250amp		877511004328	ELECHLDR250AMP	EA	250 amp
Electrode Holder 300amp		877511004335	ELECHLDR300AMP	EA	300 amp
Electrode Holder Short Stub		877511004342	ELECHLDRSHORT	EA	

GROUND CLAMPS



COPPER GROUND CLAMP TWECO® STYLE		UPC #	Part #	U/M	Size
Tweco® Style Ground Clamp 200amp	One per Box	812922012937	GCT200AMP	EA	200 amp
Tweco® Style Ground Clamp 300amp		812922012944	GCT300AMP	EA	300 amp
Tweco® Style Ground Clamp 500amp		812922012951	GCT500AMP	EA	500 amp
Ground Clamp 300amp	One per Box	877511004663	GCLAMP300AMP	EA	300 amp
Ground Clamp 500amp		877511004670	GCLAMP500AMP	EA	500 amp

WELDING PLIERS



Welper and Sidekick Pliers perform many functions:

- Remove Spatter from inside, outside and edge of nozzle.
- Wire drawing tool.
- Contact tip removal and installation.
- Insulation bushing removal & installation.
- Hammering.
- Wire cutting.
- Nozzle removal and installation.

		UPC #	Part #	U/M
WELPER YS-50 Welding Pliers	10 per carton	631291960010	WELPER	EA
SIDE-KICK MIG Welding Plier	6 per carton	812922011190	SIDEKICK	EA



CUTTING ATTACHMENT

4IN1 Cutting Attachment converts any standard torch into a convenient, multi-use tool that makes it possible to accurately bevel, cut circles, odd shapes and straight edges.

		UPC #	Part #	U/M
4 in 1 Cutting Attachment		812922014436	4IN1	EA



TIP CLEANERS

- Tip Cleaners are ideal for keeping all cutting tips & contact tips debris free.
- Multiple diameter round files for any orifice and a flat file for burs or edges.

		UPC #	Part #	U/M
Tip Cleaner - Standard	10 per Box	877511003949	TCSTD	EA
Tip Cleaner - King		877511003956	TCKING	EA



CHIPPING HAMMERS

		UPC #	Part #	U/M
Chisel & Cone	24 per Box	877511004113	CONECHISEL	EA
Cross Chisel & Cone		877511004434	CROSSCHISEL	EA



MAGNETIC HOLDERS

		UPC #	Part #	U/M	Size
Magnet Holder - Medium	10 per Box	877511004618	MAGNETHLDRMED	EA	Medium
Magnet Holder - Large		877511004601	MAGNETHLDRLG	EA	Large

MAGNETIC FLASHLIGHTS



		UPC #	Part #	U/M
Pocket LED Magnetic Work Light, 8 Super Bright LEDs	12 pieces per pop box	812922015228	FLOODLIGHT	EA

Only sold in standard cartons of 12

Flashlight & Work Light w/ Magnetic Base, LED Flashlight with 90° Head, 10 LED Worklight	12 pieces per pop box	812922015877	STIK-LIGHT	EA
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Only sold in standard cartons of 12



LIGHTERS

- Provides easy and accurate ignition insured by multi-spark discharge
- Zinc-plated body resists rust and corrosion
- Tested to 300,000 strikes!

		UPC #	Part #	U/M
Green-Lite Spark Lighter	One lighter	812922011459	GREENLITE	EA



SPOOL ADAPTER

The Universal Spool Adapter quickly adapts to most full size wire-feeders and integrated MIG Machines to use a 4 inch (1lb or 2lb) spools without altering the standardized 2 inch spindle assembly.

- Spool adapter positions the spool close to wire inlet guide allowing smoother wire feeding.
- It allows you to use a 4 inch spool for small jobs.
- Large rubber grommet to align the spool and wire with the inlet guide drive roll system.

		UPC #	Part #	U/M
Universal Welding Wire Spool Adapter	One Adapter	812922015884	SPLADAPTER	EA

MARKERS



SOAPSTONE & HOLDERS-METAL MARKING DEVICE

		UPC #	Part #	U/M	Size
Flat Soapstone	6 Gross per Box	877511003970	SOAPSTONEFLAT	GR	Flat 1/2"x5"
Round Soapstone		877511003987	SOAPSTONERND	GR	Round 1/4"x5"
Holder Flat Soapstone	10 Holders per Box	877511003994	HLDRFLATSOAP	EA	
Holder Round Soapstone		877511004007	HLDRRNDSOAP	EA	

Only Sold in Standard Box



SILVER-STREAK™ MARKERS

		UPC #	Part #	U/M
Silver-Streak™ Marking Pen	One pen	877511007046	PEN	EA
Silver-Streak™ Round Refills - 6 per Tube	One tube	877511007053	PENREFILL	EA

CONTACT TIPS - MILLER™ & TWECO® STYLE

Weldcote Contact Tips are manufactured using Copper Chrome Zirconium which has increased hardness, improved wear resistance and longer life than standard copper contact tips.

CONTACT TIPS - MILLER™ STYLE



		UPC #	Part #	U/M	Size
Contact Tip .023 For MIG Gun 10 Pack	10 Tips per Pack / 50 Packs per Box	812922012548	CTIP66	PK	.023
Contact Tip .030 For MIG Gun 10 Pack		812922011565	CTIP67	PK	.030
Contact Tip .035 For MIG Gun 10 Pack		812922011572	CTIP68	PK	0.035
Contact Tip .045 For MIG Gun 10 Pack		812922011589	CTIP69	PK	0.045

CONTACT TIPS - TWECO® STYLE



25 Pieces per Pack - Ziplock Polybag with a Header Card		UPC #	Part #	U/M	Size
Tweco Contact Tip 25 Pack 11-23	25 Tips per Bag	812922014115	11-23	PK	.023
Tweco Contact Tip 25 Pack 11-30		812922014122	11-30	PK	.030
Tweco Contact Tip 25 Pack 11-35		812922014139	11-35	PK	.035
Tweco Contact Tip 25 Pack 14-30		812922014177	14-30	PK	.030
Tweco Contact Tip 25 Pack 14-35		812922014184	14-35	PK	.035
Tweco Contact Tip 25 Pack 14-45		812922014207	14-45	PK	.045
Tweco Contact Tip 25 Pack 14H-35		812922014238	14H-35	PK	.035
Tweco Contact Tip 25 Pack 14H-45		812922014252	14H-45	PK	.045

5 Pieces per Pack - Ziplock Polybag with a Header Card		UPC #	Part #	U/M	Size
Tweco Contact Tip 5 Pack 11-23	5 Tips per Bag	812922015365	11-23-5PK	PK	.023
Tweco Contact Tip 5 Pack 11-30		812922015389	11-30-5PK	PK	.030
Tweco Contact Tip 5 Pack 11-35		812922015402	11-35-5PK	PK	.035
Tweco Contact Tip 5 Pack 14-35		812922015488	14-35-5PK	PK	.035
Tweco Contact Tip 5 Pack 14-45		812922015501	14-45-5PK	PK	.045

10 Pieces per Pack - Ziplock Polybag with a Header Card		UPC #	Part #	U/M	Size
Tweco Contact Tip 10 Pack 11-30	10 Tips per Bag	812922015396	11-30-10PK	PK	.030
Tweco Contact Tip 10 Pack 11-35		812922015419	11-35-10PK	PK	.035

WIRE SCRATCH BRUSHES



- For Cleaning - Machinery, Iron Work, Castings, Auto Chassis, Springs, Brick, Stone, etc.
- For Brushing - Welding Joints, Pipe Threads, Batteries, Machine, Borings, Fittings, etc.
- For Removing - Rust, Scale, Excess Solder, Dirt, Paint, Grease, etc.

		UPC #	Part #	U/M	Size
Brush- Stainless Shoe Handle	12 per Box	877511004069	BRUSHSSH0E	EA	3×16
Brush- Carbon Steel Shoe Handle		877511004076	BRUSHCSSH0E	EA	3×16
Brush- Stainless Long Handle		877511004083	BRUSHSSLONG	EA	3×19
Brush- Carbon Steel Long Handle		877511004090	BRUSHCSLONG	EA	3×19
Brush-Stainless Toothbrush	36 per Box	877511004106	BRUSHSST00TH	EA	3×7

Only Sold in Standard Box

CHEMICAL AIDS

ANTI-SPATTER



- Anti-Spatters Prevent Spatter From Adhering to Surrounding Metal Surfaces During Welding.
- Water-Based Formula Allows Easy Clean Up Without the Use of Solvent Cleaners.

ANTI-SPATTER		UPC #	Part #	U/M
Anti-Spatter 16 oz	12 per Case	877511004731	ANTISPAT16	EA
Anti-Spatter 24 oz		877511004748	ANTISPAT24	EA

Only Sold in Standard Cases

ANTI-SPATTER WATER BASE		UPC #	Part #	U/M
Anti-Spatter 16 oz Aqua Shield	12 per Case	812922011824	ANTISPAT16WB	EA
Anti-Spatter 1 Gallon Aqua Shield	4 per Case	0	ANTISPAT1GLWB	EA

Only Sold in Standard Cases

NOZZLE GEL



Nozzle Gel is Directly Applied to the MIG Gun Nozzle and Contact tip to Prevent Adhesion of Weld Spatter.

		UPC #	Part #	U/M
Nozzle Gel 16 oz	12 per Case	877511004755	NOZZLEGEL16	EA

Only Sold in Standard Cases

AEROSOL CANS-GALVANIZING SPRAY



Weldcote Galvanizing Spray provide zinc protection on welds, galvanized steel, base iron and other surfaces exposed to harsh and corrosive environments.

		UPC #	Part #	U/M
Galvanizing Spray 13 oz	12 per Case	812922012838	GALVSPRAY13	EA

Only Sold in Standard Cases

COOLANT



Both Blue, Red, and Green Coolants are specially formulated for use on all water circulating systems.

- Recommended for Plasma, MIG, TIG, resistance welding and general industrial applications.
- Blue Coolant 19°F / -7°C
- Red Coolant 6°F / -14°C

		UPC #	Part #	U/M
Blue Coolant 1 Gallon	19°F / (7)°C	812922014443	BLUECOOLANT	EA
Red Coolant 1 Gallon	6°F / (14)°C		REDCOOLANT	EA

Only Sold in Standard Cases



weldcote 
www.weldcotemetals.com

MARKETING LITERATURE

Welcote Abrasives Catalog	199903
Welcote METALS / SAFETY / TOOLS Catalog	199909

SHIPPING LOCATIONS:

Weldcote Sales & Corporate Offices:
 842 Oak Grove Road
 Kings Mountain, NC 28086 USA
 ☎ 877-866-4115 📠 704-739-6116
 ☎ 704-739-4115 🌐 www.weldcotemetals.com

Weldcote Abrasive & Manufacturing:
 Dist. Center & Training
 7720 N. Lehigh Avenue Niles, IL 60714
 ☎ 224-998-2600 📠 224-998-2649
 ☎ 888-258-0121

Weldcote Dist. Center & Sales:
 40 Messina Drive
 Braintree, MA 02184
 ☎ 781-849-1200
 📠 781-849-1270

Weldcote Warehouse & Sales:
 1930 S. Carlos Avenue
 Ontario, CA 91761
 ☎ 866-923-2167
 📠 909-923-7016

Weldcote Dist. Center:
 258 S. Kitley Avenue
 Indianapolis, IN 46219

Weldcote Dist. Center:
 5994 Griggs Road
 Houston, TX 77023