

All About Applicators



- Paintbrushes
- Rollers
- Frames, Minirollers, Poles

Table of Contents

All About Applicators

As a painter, you know the kind of performance you like from an applicator and what level of results you're looking for on the job. This manual is designed to provide information you need to choose the right applicator. You'll learn about the parts of a brush and roller cover, various filament and bristle formulations, different fabric types, and methods of fabric construction. This manual also includes tips from painters like you. With advanced knowledge about paint applicators and accessories, you can come closer to achieving the ultimate performance and results every time.

Brushes.....	1-8	
Rollers.....	9-12	
Frames.....	13-14	
Minirollers.....	15-16	
Poles.....	17	
Certification Quiz.....	18-19	



The WOOSTER BRUSH Company
woosterbrush.com

Brushes

Brushes started out as entirely handmade, but precision machine processes replaced the majority of manual labor that went into building a paintbrush. Machine production allows manufacturers to utilize the latest technology and promotes consistent quality by reducing human error. Each part of a paintbrush serves a purpose, and the materials and construction used greatly impact the end performance.

COMPONENTS



PAINTER'S TIP

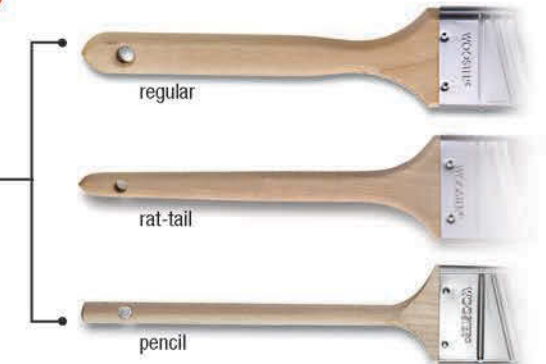
Never use the same brush in both oil- and water-based paints, because it gums up. Keep two sets of brushes—one for oils, the other for acrylics—to make cleaning faster and increase the life of the brush.

Brushes

HANDLE STYLES

Sash

Long, thin handles in regular, rat-tail, and pencil styles provide extra control.



Shortcut®

Made with Shergrip® elastomeric material, this compact handle (only from Wooster) measures 2 1/4" long for comfort and control even in tight spaces.



Varnish

Medium, contoured "beavertail" handles are designed for a comfortable feel.



Dowel

Round, thin, pencil-style varnish handles make the brush easy to rotate and direct.



Shasta®

Unique "diamond cut" handle end with a thicker shoulder just above the ferrule. Traditional, distinguished shape balances the thick brush.



Wall

Large, thick beavertail style allows a good, firm grip and balances a large brush head.



Ferrules



Stainless steel
Professional quality, rust-resistant, very durable to help avoid denting, brushed finish.



Rust-resistant steel
Professional quality, anti-corrosion, holds filament very securely, matte finish.



Copper-coated stainless steel
Professional quality, rust-resistant, bright copper finish for cosmetic appeal.



Brushed steel
Semi-professional quality, alloy coating, rust-resistant (but to a lesser degree than those at left), satin finish.



Brass-plated steel
Mid-line quality, enamel coating, durable, bright brass finish.



Tin-plated steel
Economy quality, bright finish.

TIPPING







The most important part of a paintbrush is the working end. Performance is based on the engineering of the filament, which is invisible to the naked eye. The filament and how it is finished or tipped affects the feel of the brush and the results you get. Every company guards their proprietary tipping methods, because they're a big part of what makes each brand different. Finishing is an ever-changing technology that top manufacturers strive to master in order to provide the best performance in today's coatings.



Brushes

Making the Grade: Filament Facts

Synthetic brushes made with nylon, polyester, and other filaments can be used with all types of paint, and are especially recommended for water-based coatings (latex, acrylics, water-based wood finishes). They perform well while painting smooth to rough surfaces in any weather, even heat and humidity.

FILAMENT	GRADE	CHARACTERISTICS
 DuPont™ CHINEX®	A+	Maintains stiffness for control, resists heat and humidity. Lasts 7 times longer than bristle. Excellent paint pickup, smooth release. Cleans completely and easily.
 NylonPlus™	A+	All the positive qualities of nylon, plus more stiffness. Exclusively from Wooster in Ultra/Pro® Extra-Firm brushes. Maintains stiffness in heat and humidity, excellent control. Resists wear and cleans up easily.
 NYLON	A	Very durable, resists wear on rough surfaces. Lasts 5 times longer than bristle, 2 times longer than polyester. Tips very precisely for a smooth, professional finish. Cleans completely and easily. Softens in hot weather or prolonged use in latex.
 NYLON/POLYESTER	A-	Combines positive qualities of nylon and polyester. Polyester adds stiffness and control to the brush. Nylon delivers precise tipping, smooth finish. Takes some time to clean.
 CT™ POLYESTER	B+	Chemically tipped for excellent leveling and smoothing ability. Thin, soft filaments virtually eliminate brushmarks. Lower paint pickup and production than nylon/polyester. Takes time to clean, somewhat limited brush life.
 POLYESTER	C	Does not absorb water, resists heat and softening. Lasts 2½ times longer than natural bristle. Can't be precisely tipped, tends to leave brushmarks. Difficult to clean, limited brush life.

PAINTER'S TIP

Make cleaning brushes easier by using blue masking tape. Wrap 2 inches of tape around the ferrule, with the tape reaching down about half an inch onto the filament. The paint still gets behind the tape, but little air exposure keeps the dry line up the filament about half an inch.

PAINTER'S TIP

Paint formulations now have more acrylic resins and fast-drying solids, making it harder to clean brushes. Acrylic sticks to polyester, so brushes with a decent amount of polyester won't clean as well. Try Wooster Ultra/Pro Extra-Firm or Chinex FTP™—these brushes don't contain any polyester and clean up awesome.

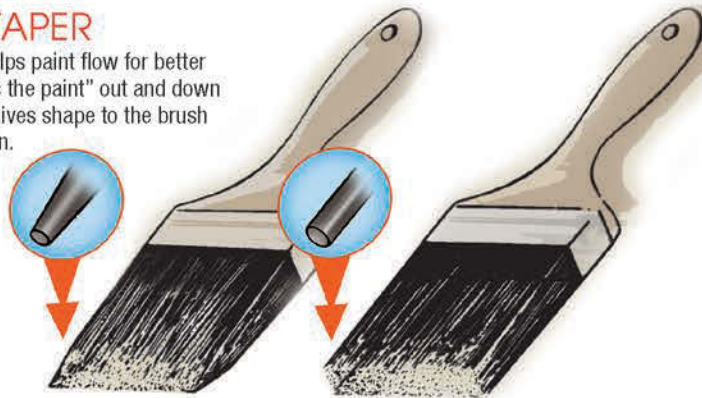
Degrees of Stiffness

Many factors determine the type of brush that will provide the best results on a job—the paint being used, the environment or conditions, the surface itself, and the painter's preference. Manufacturers today are making brushes in various blends so painters can choose the "feel" they like the most.

BLEND	USES	PAINTS
 <p>SOFT</p>	Great for fine-finish painting and interiors. Works best in low humidity and cooler temperatures. Extra flex and smoothness.	Clears, stains, and lightweight paints or primers. Fast-drying coatings.
 <p>FIRM</p>	Designed for all-purpose painting, indoors or out. Just-right taper for even coverage. Stable touch with balanced flex.	Medium-weight coatings, like acrylics and enamels.
 <p>EXTRA-FIRM</p>	Durable for exterior use and rough surfaces. Sharp edge, performs well in heat and humidity. Solid feel and superior stiffness.	Thicker paints and primers. Low VOCs and other fast-drying coatings.

TEST FOR TAPER

Tapered filament helps paint flow for better coverage. It "pumps the paint" out and down to the surface and gives shape to the brush for precise cutting-in.



Tapered





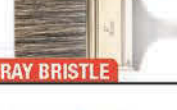

Comes to a point and provides more control, releases paint evenly.

Untapered

Same thickness from base to tip. Lower price, but less coverage and control.

Making the Grade: Bristle Facts

Natural bristle is the best choice for oil-based paints, varnishes, shellac, alkyd enamels, oil stains, and oil-based polyurethanes. The highest quality comes from mainland China. It has the softest natural tipping and flexibility, providing the smoothest finish with virtually no brushmarks.

BRISTLE	GRADE	CHARACTERISTICS
 <p>BRISTLE/NYLON</p>	A-	Combines positive qualities of nylon and bristle. Bristle provides a super-smooth finish and fluid glide. Nylon adds durability and improves cleanup. Can be used in all paints, but performs best in oil-based coatings or high-grade acrylics.
 <p>BLACK BRISTLE</p>	B	Slightly stiffer than white bristle. Thicker flags on the tips than white bristle. Excellent for high-productivity or exterior applications.
 <p>WHITE BRISTLE</p>	B	Softer and more flexible than black bristle. Thin, feather-like flags on the tips. Excellent for fine finishing or interior applications.
 <p>BRISTLE/POLYESTER</p>	B	Polyester adds durability and stiffness for control. Natural tipping from bristle provides a smooth finish. Can be used in water-based and oil-based paints or wood finishes.
 <p>GRAY BRISTLE</p>	C	Cost-effective bristle for DIY and maintenance brushes. Made from an unsorted mixture of black and white bristle. Softer than black bristle, but stiffer than white alone.
 <p>OX HAIR</p>	A	Natural bristle material obtained from the ears of oxen. Extremely thin, soft, and expensive. Tips come to a natural point (no flag) for super-fine finishing. Always blended with China bristle in standard paintbrushes. Perfect for lacquer, enamels, marine paints, and varnishes.

DID YOU KNOW...

Bristle is not recommended for use in latex or acrylic paints because it will absorb up to 40 percent of its own weight in water, causing it to flare or become too soft to paint effectively. Also, rough surfaces will break the tips off natural bristle so it will no longer provide that smooth, glass-like finish. Nylon is five times more durable than bristle, so it's best to choose a synthetic brush for painting rough surfaces—even when using oil-based paints.







Chinese bristle hog

Brushes

Match the Brush to the Project

When choosing a brush size, select the one you think will “fit” the surface nicely. Larger brushes hold more paint and help you finish faster (less dipping to refill). The angled edge vs. flat/straight is basically a matter of user preference, though an angle sash is particularly effective on vertical surfaces.

BRUSH	SIZE	SURFACES
	3" to 4"	Exterior siding, decks, fences, masonry, walls, ceilings, doors
	2" to 2 1/2"	Baseboards, cabinets, furniture, stairs, railings, shutters, gutters
	2" to 2 1/2" angle sash	Window frames, casings, mouldings, cutting-in edges of walls & ceilings
	1" to 1 1/2" angle or flat	Hobbies & crafts, window mullions, tight corners, very detailed areas

HOW TO LOAD A BRUSH

1. Dip the brush no more than halfway into the paint. To avoid dripping and keep your fingers clean, do not sink the brush up to its metal ferrule.
2. Let excess paint drip for a moment, then lightly tap both sides of the brush against the interior wall of the can or bucket. Scraping excess paint on the lip of the can is messy and counterproductive because it removes the paint you just loaded into the brush.
3. As you paint, make sure to keep a wet edge, and continue to paint from that point forward. Use long, smooth strokes and refill the brush whenever the paint starts to break up without covering the surface properly.



PAINTER'S TIP

Never dip your brush more than halfway up the filament. It won't get on the wall, it will just gum up the brush.

Brushes

How to Clean Paintbrushes

Many of today's coatings are designed to dry quickly, making them especially difficult to clean out of paintbrushes. The paint resins bind to the brush filaments within a very short period of time. In fact, some primers are basically impossible to remove—that's when you should pull out an old brush, use it, and be prepared to toss it when you're done. With rollers, it's almost always most efficient and cost-effective to simply throw them away after use.

To improve cleanup, we recommend a 3-step process to lengthen the life expectancy of professional paintbrushes. The instructions below are for water-based paints only; refer to the paint manufacturer's guidelines for brushes used in oil-based coatings.



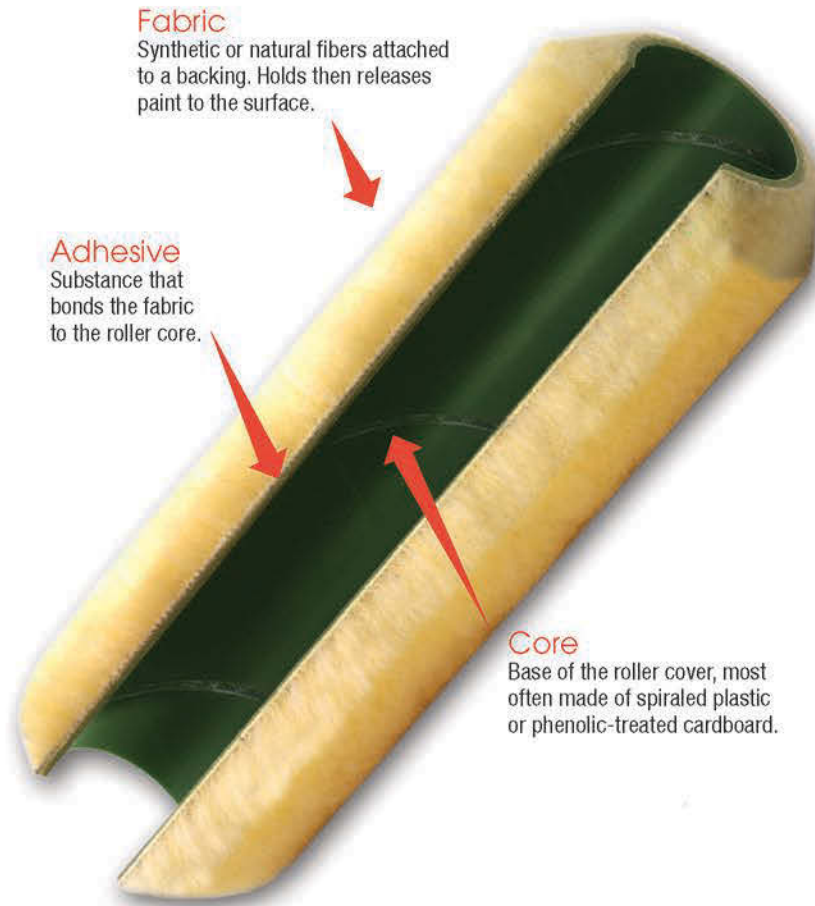
- Step 1** Rinse the paint from the brush with warm water while combing out the brush from base to end with both sides of our 1832 Painter's Comb™. This will ensure that you have loosened all partially dried paint from the inside of the brush.
- Step 2** Add a liberal amount of hand cleaner with pumice to the brush and work it in completely. There are many brands of hand cleaner that will do the job—some are liquid, while others are a thick paste that are scooped out of the container.
- Step 3** Rinse the brush well, until the water runs clear of all paint and hand cleaner. You may need to add some regular hand soap during this final process for very hard-to-clean primers, paints, and stains. After the final rinse, do one last comb-through to make sure the paint is completely removed from the center of the brush. Then spin, comb, and hang to dry.

This method does not keep the coating from drying in the brush, so if you are using a fast-drying primer or paint, you will need to clean brushes before the end of the day. This is true for *all* paintbrushes. You may have to change brushes every two to four hours, so keeping an extra set of clean brushes will allow you to remain productive while the used brushes dry after cleanup.

Rollers

Sleeves, covers, rollers, refills... no matter what you call them, rollers are a fast, effective, and simple method of applying paint to large areas. Today, many painting contractors use spray equipment for big jobs. However, roller covers will always have their place on the jobsite due to their affordability and the control they offer (no overspray issues).

ROLLER COVER PARTS



PAINTER'S TIP

For the best results, after you roll and get even coverage, finish with light, vertical, full-length strokes—painting down only—over each section. It will give you the smoothest finish.

Rollers

Types of Roller Fabric

FABRIC	CHARACTERISTICS
 SYNTHETICS	Broadest category of paint roller fabrics. Made with a single fiber type or a blend of fibers. Common materials are polyester, nylon, rayon, and acrylic. Can be used with water- or oil-based coatings. Quality varies from professional to economy.
 SHEARLING	Wool that is still attached to its tanned skin, also called lambskin or sheepskin. Naturally shed-resistant, exceptional capacity and release. Expensive, but preferred by some professionals. Prolonged soaking can cause the cover to delaminate.
 50/50™	High-performance blend of wool and polyester fibers. Wool provides maximum capacity and a smooth finish. Polyester helps fabric resist matting.
 MOHAIR	Silky, Angora goat hair, always woven together with synthetic fibers. Creates a smooth, glass-like finish and resists matting. Expensive, but provides superior results on smooth surfaces.
 MICROFIBER	Unique fabric with a velvety texture. Tiny fiber tips deliver excellent finish quality. Good paint release, even coverage, minimal stipple.
 POLAR BEAR®	Unique, plush fabric offers excellent paint pickup and release for fast coverage. One pile height works for smooth to semirough surfaces, reaches into textures. Silky fibers are easy to clean.
 POLYAMIDE	Yarn-like fabric that offers high capacity and durability. Bulk and thickness of the twisted tufts make it great for rough surfaces. Often used for back rolling as well as painting.
 FOAM	Guarantees a "lint-free finish" because there are no fibers in this paint roller material. Smooth results, but very low paint pickup and release. Quality varies from professional to economy.

ROLLER FINISHING PROCESSES


The manufacture of roller covers includes multiple steps that "finish" the cover and get it ready for painting. First, rollers are fluffed up and any longer fibers are shaved off to improve coverage. Then they are beveled at the ends to prevent fat edges on the paint stripe and give added control when rolling next to adjacent surfaces. Finally, the cover is vacuumed to remove loose fibers. Similar to brush tipping, every company uses proprietary methods to finish roller covers and takes pride in the performance results.

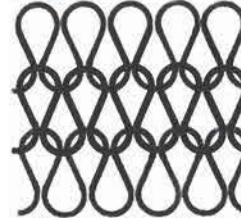
Rollers

Fabric Facts: Knit vs. Woven


The vast majority of paint rollers are made one of two ways—knitting or weaving. “Shed-resistant knit” fabrics combine the strengths of both, but a true woven cover will provide a finer finish than a shed-resistant knit. The backing and pile fibers are different in knit and woven fabrics, as shown below.

KNIT






Backing

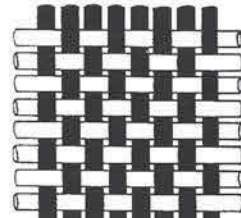


Pile Fiber


Knit fabrics have a looped backing, and the pile fibers are secured to that backing with a single pass-through. The result is a more “open” fabric that can pick up and release higher amounts of paint than woven fabrics for the fastest coverage.

WOVEN





Backing



Pile Fiber

Woven fabrics have a backing with a tighter cross section. The pile yarns are secured with two pass-throughs, and the yarns have a twist to them that helps lock them into the backing. This results in a shed-resistant fabric that provides the smoothest, virtually lint-free finish.





HOW TO CHOOSE THE RIGHT FABRIC

Consider the sheen of the paint. The higher the sheen, the more the surface will show lint from the roller. For semigloss or gloss paint, choose a shed-resistant woven cover. To apply flat, eggshell, or satin paint, use a high-capacity knitted cover. For a professional-quality finish, we recommend using a shed-resistant roller with flat or satin paint, too!

Rollers

Match the Roller to the Surface

The nap or pile height of a roller cover is the length of the fibers that extend from the backing and carry the paint. For smooth surfaces, choose a shorter pile to evenly apply the paint; rough surfaces need a higher pile, so the long fibers can reach into the valleys of the texture. Some painters prefer to “bump up” to a thicker nap for higher production (e.g. 1/2” instead of 3/8”). Select the pile height that still provides the desired finish.

ROLLER	NAP SIZE	SURFACES
	3/16” or 1/4”	Untextured plaster, drywall or wallboard, smooth wood & metal
	3/8” or 1/2”	Most walls & ceilings, lightly textured drywall or wood, acoustical tile, paneling, smooth concrete
	3/4” or 1”	Textured plaster, stucco or siding, decks, concrete block
	1 1/4” or 1 1/2”	Heavily textured plaster or stucco, rough wood, brick, corrugated metal

HOW TO LOAD A ROLLER COVER

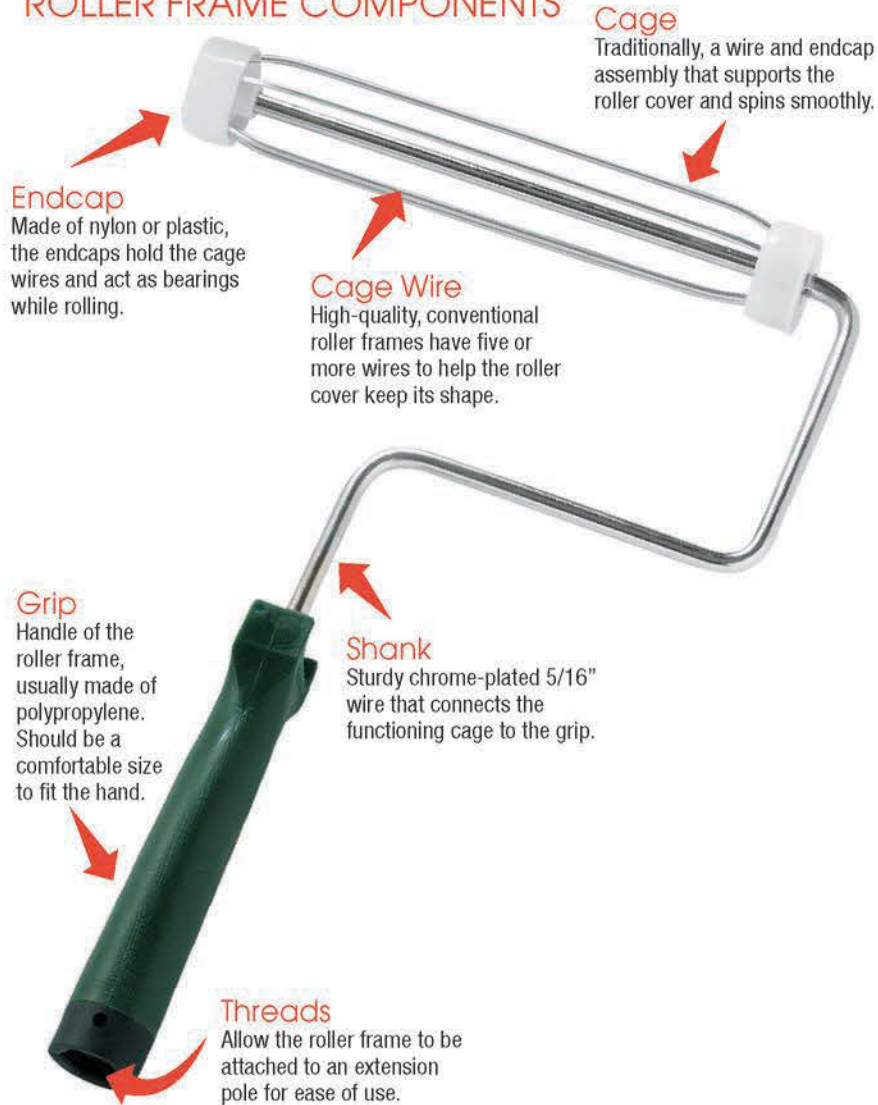
- Many painters “break in” a roller cover by priming it with water or thinner. In our lab we never prewet a cover before painting. If you choose to, you must spin it out with five or six strong pumps so it is only *lightly* damp. Then take even more moisture out by blotting the cover with a paper towel. Wooster recommends conditioning only for water-based paints, using water.
- Use a liner in the paint tray to save time during cleanup. Thoroughly mix the paint, then pour some in the well of the tray. Don't overfill—the well should be half empty. You need room to roll excess paint onto the tray's grid.
- With the roller cover on the frame, drag some paint with the edge of the cover from the tray well back onto the roll-off area. Do not submerge the cover. Roll it on the grid toward the well using several quick forward strokes, then drag more paint back with the cover. Continue until it is completely saturated but not dripping.
- Patience is very important when loading a cover. It takes time to work paint through the fabric down to the core, especially with woven fabrics. Allow several minutes for the initial loading.
- Do not “starve the cover” by attempting to paint too far without refilling—that can compress the fibers and make it more difficult to reload, forcing you to spend more time in the tray.



What to Look For in a Roller Frame

A roller frame that drags or sticks is a major frustration. To make the job go faster and the coverage better, spend a few dollars more for a frame that spins smoothly.

ROLLER FRAME COMPONENTS



If you use a paint roller frame on a regular basis, you will greatly appreciate the features of the Sherlock frame! Introduced by Wooster in 1992, there are many look-alikes on the market that cannot match its performance.

SHERLOCK® FRAME



Minirollers

What to Look For in a Miniroller System

The greatest appeal of minirollers is for small jobs that in the past typically required a brush. They are lightweight, fast, and easy to use.

TRADITIONAL MINIS



SIDE NAP VS. BUTTON END

Side nap minirollers, or rollers with fabric covering the end, are designed for added coverage while painting into corners, where two adjacent walls or the wall and ceiling are the same color. To paint beside a surface that is a different color, or next to an unpainted surface, button-end minirollers create a cleaner line and provide greater control. Both roller styles are useful.

Minirollers

Minirollers are great for any area with a lot of fixtures, trim, windows, or doorways, resulting in small wall spaces. Keep them in mind for these painting projects:

- Kitchens & baths
- Closets & hallways
- Cabinets & cupboards
- Baseboards & mouldings
- Doors & railings
- Cutting-in & trim work

JUMBO-KOTER® SYSTEM



PAINTER'S TIP

For a better looking paint job, use a brush to cut-in about a half-inch margin, and follow immediately with a Jumbo-Koter and roll as close as possible to eliminate any cut-in differences. Then when the rest of the walls are rolled, you see no cut lines or different textures.

Poles

What to Look For in an Extension Pole

A durable extension pole like the Wooster Sherlock® brand described below is a solid investment because it can last many years. Choosing a quality pole ultimately saves time and money.

EXTENSION POLE PARTS



PAINTER'S TIP

Lightly spray nonstick cooking spray on the Sherlock aluminum inner pole before painting, and when you're done you just easily wipe off the paint. You don't get paint buildup on the extension pole, and the pole doesn't get stuck.

Certification Quiz

Now that you have learned ALL ABOUT APPLICATORS, gauge your knowledge with this test. The answers are provided on the last page.

1. The best type of brush for oil-based paints is _____.
A. natural bristle B. nylon C. polyester D. foam
2. Synthetic brushes are especially recommended for _____.
A. oil-based finishes B. varnishes C. water-based paints D. epoxies
3. The quality of finish that a brush creates depends largely on a company's _____ process.
A. cutting B. dyeing C. tipping D. harvesting
4. Determining what type of brush should be used depends on _____.
A. preference B. coating/paint C. environmental conditions
D. surface to be painted E. all of above
5. Which type of filament lasts 5 times longer than bristle and cleans quickly and easily?
A. olefin B. nylon C. polyester D. ox hair
6. This filament was developed by DuPont; it cleans very well and lasts 7 times longer than bristle.
A. CHINEX® B. nylon C. polyester D. nylon/polyester blend
7. It lasts 2½ times longer than bristle and resists heat and softening:
A. tampico B. nylon C. polyester D. nylon/polyester blend
8. When painting rough surfaces or in hot or humid conditions, this category of brush is best:
A. soft B. firm C. extra-firm D. none of above
9. The highest quality natural bristle comes from _____.
A. America B. Italy C. China D. India
10. Why is bristle not recommended for use with latex or acrylic paints?
A. Chinese bristle hogs are endangered B. it absorbs water and softens
C. it's more expensive D. all of above
11. _____ is slightly stiffer and has thicker flags than white bristle. It performs well with oil-based paints, enamels, and exterior stains.
A. Horse hair B. Gray bristle C. Black bristle D. All of above
12. _____ is softer and more flexible than black bristle. It's recommended for varnishes, polyurethanes, interior oil stains, and oil-based paints.
A. White bristle B. Gray bristle C. Horse hair D. Microfiber
13. To properly load a brush, the filament should be dipped into the paint _____.
A. to the ferrule B. about halfway up the filament C. just enough to cover the tip
D. as infrequently as possible

Brushes—Matching

14. Spacer _____ A. Often made of wood or plastic, should provide comfort and good balance.
15. Epoxy _____ B. The working end of the brush, made with synthetic or natural materials.
16. Handle _____ C. Type of cement or adhesive that locks filaments or bristles in place.
17. Ferrule _____ D. Metal band that holds the filament and handle together, and adds strength to the brush.
18. Filament _____ E. Small strip of wood or other material that creates a paint reservoir.

Certification Quiz

19. Covers and sleeves are both synonyms for _____.
A. packaging B. frames C. rollers D. brushes
20. Rollers are an excellent solution for many applications because they _____.
A. don't create overspray B. don't leave brushmarks C. are faster than a brush D. all of above
21. A brush is to the type of paint (water- or oil-based) as a roller is to the paint _____.
A. viscosity B. sheen (flat to gloss) C. color D. price
22. The other term for pile height is _____.
A. plume B. hair C. nap D. cut
23. Roller fabrics made with a single pass-through are _____. Use these fabrics with flat, eggshell, or satin paints and stains or waterproofing.
A. stitched B. sewn C. woven D. knitted E. knotted
24. Roller fabrics made with two pass-throughs are _____. Their shed-resistant qualities make them ideal for enamels, primers, and all paints.
A. stitched B. sewn C. woven D. knitted E. knotted
25. The main difference between wool and shearling rollers is that shearling is _____.
A. still attached to the tanned skin B. not just for sweaters anymore C. natural fiber D. less likely to delaminate
26. What pile height should be used for most walls and ceilings?
A. 3/16" or 1/4" B. 3/8" or 1/2" C. 1/4" or 1/2" D. none of the above
27. Which pile height is the best choice to reach into the peaks and valleys of a rough surface?
A. 3/16" or 1/4" B. 3/8" or 1/2" C. 3/4" or 1/4" D. none of the above
28. When painting with a roller, going back and making light, full-length, downward strokes over the entire section as the final step will _____.
A. make your arms cramp up B. help to empty the roller C. create the smoothest finish D. have no effect on the end result
29. Minirollers are ideal for _____.
A. kitchens B. baths C. cabinets D. cutting-in E. all of the above
30. Minirollers that have a _____ create clean lines next to different colored (or unpainted) surfaces.
A. side nap B. button end C. polypropylene core D. short pile

Roller Frame—Matching

31. Cage _____ A. Sturdy wire that connects the cage to the grip.
32. Cage Wire _____ B. Allow the frame to be attached to an extension pole.
33. Endcaps _____ C. Usually made of plastic or wood, should fit in the hand comfortably.
34. Grip _____ D. Wire and endcap assembly to support the roller.
35. Shank _____ E. Typically made of nylon or plastic and act as bearings while rolling.
36. Threads _____ F. Quality frames have five or more.



For more information about paint applicators and additional painting tips, visit our website.
woosterbrush.com

WOOSTER®

The Wooster Brush Company
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Answers

- | | | | |
|------|-------|-------|-------|
| 6) A | 13) B | 25) A | 31) D |
| 5) B | 14) E | 26) B | 32) F |
| 4) E | 15) C | 27) C | 33) E |
| 3) C | 9) C | 21) B | 34) C |
| 2) C | 8) C | 22) C | 35) A |
| 1) A | 7) C | 23) D | 36) B |
| | | 19) C | |
| | | 20) D | |
| | | 21) B | |
| | | 22) C | |
| | | 23) D | |
| | | 24) C | |
| | | 30) B | |
| | | 29) E | |
| | | 18) B | |
| | | 17) D | |
| | | 12) A | |