

# ALL ABOUT APPLICATORS

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## 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, as well as advice on loading an applicator and what to look for in a quality miniroller system, roller frame, or extension pole. With advanced knowledge about paint applicators and accessories, you can come closer to achieving the ultimate performance and results every time.

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Paintbrushes made the history books in 1330 B.C. during the times of the Phoenicians. They were constructed using twine to bind wild boar hairs in the open end of an animal horn. While brushes may have started out as entirely handmade, nowadays precision machine processes are often used to supplement professional brushmaking. Machine production allows manufacturers to utilize the latest technology and promotes consistent quality by reducing human error.

## BRUSH COMPONENTS

### Handle

Made of wood, plastic, or other synthetic materials. Provides comfort and good balance.

### Ferrule

Metal band that holds the filament and handle together. Attached by nailing or crimping.

### Filament

The working end of the brush, made with synthetic or natural bristle materials.

### Epoxy

Type of cement or adhesive that locks filaments or bristles in place.

### Spacer

Small wood, plastic or cardboard strip that creates a reservoir to carry paint.

## Painter's Tip from Georgia

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.

## HANDLE STYLES

### Sash

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

regular

rat-tail

pencil

### Shortcut®

Made with Shergrip® elastomeric material, this compact handle (only from Wooster) measures no longer than 4 1/4", 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 a 25/32" thick brush.

### Wall

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

## FERRULES

**Rust-resistant steel**

Professional quality, anti-corrosion, self-healing coating hides scratches, holds filament very securely, matte finish.

**Stainless steel**

Professional quality, rust-resistant, very durable to help avoid denting, brushed 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 you can't see with 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. Trial and error will show which brushes perform best in different paints.








## Painter's Tip from Pennsylvania

What do you do to make it easier to clean your brushes at the end of the job, especially where the filament enters the ferrule? You take 2 inches of blue masking tape and wrap it around the ferrule, with the tape reaching about 1/2 inch onto the filament. The paint still gets down behind the tape, but because little air gets to it, the dry line is up the filament about 1/2 inch.

## 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
 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.
 DuPont™ CHINEX®	A+	Maintains stiffness for control, resists heat and humidity. Lasts 7 times longer than bristle. Perfect balance of paint pickup and release. Cleans completely and easily.
 NYLON/POLYESTER	A-	Combines positive qualities of nylon and polyester. Polyester used in short lengths to add stiffness and control. Nylon used in long lengths for precise tipping, smooth finish. Depending on the polyester content, takes some time to clean.
 CT™ POLYESTER	B+	Chemically tipped for excellent leveling and smoothing ability. Thin, soft filaments virtually eliminate brushmarks. Does not carry or release a lot of paint, low production. Takes some time to clean.
 POLYESTER	C	Does not absorb water, resists heat and softening. Lasts 2 1/2 times longer than natural bristle. Can't be precisely tipped, tends to leave brushmarks. Difficult to clean.




## Painter's Tip from New Jersey

Do you find it is getting harder and harder to clean your brushes? That's because of the changes in paint formulations over the years—the paint now has more acrylic and more solids. Acrylic sticks to polyester, so any brush which has a decent amount of polyester doesn't clean as well. Try the Wooster Chinex or Wooster nylon, two brushes that contain no polyester and clean up awesome.

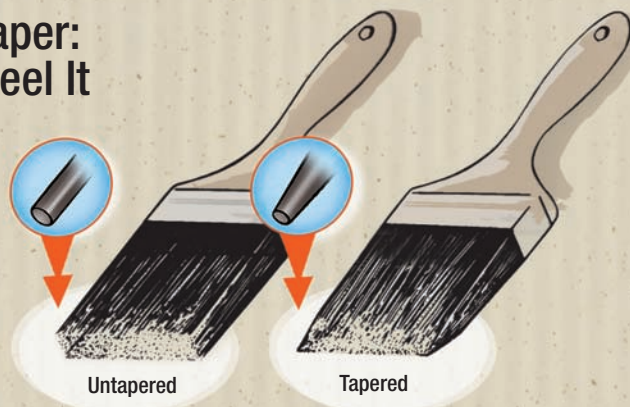


## Degrees of Stiffness

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

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





## Test for Taper: See It & Feel It



Tapered filament helps paint flow for better coverage. It "pumps the paint" out and down to the surface. It also gives shape to the brush for precise cutting-in. Look at the brush edgewise. If it comes to a point, it has taper and will provide more control. Untapered or level filament reduces the price of the brush, but it also sacrifices capacity, coverage, and control. It won't release paint like tapered filament. If the thickness of a brush feels the same from base to tip, it is untapered. It lacks the performance of a brush with tapered filaments.

## 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
 <b>BLACK BRISTLE</b>	<b>B</b>	Slightly stiffer than white bristle. Thicker flags on the tips than white bristle. Excellent for high-productivity or exterior applications.
 <b>WHITE BRISTLE</b>	<b>B</b>	Softer and more flexible than black bristle. Thinner, feather-like flags on the tips. Excellent for fine finishing or interior applications.
 <b>GRAY BRISTLE</b>	<b>C</b>	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.
 <b>OX HAIR</b>	<b>A</b>	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 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



## Match the Brush to the Project

Choosing the right brush size is not difficult. Basically, you should select a comfortable size that 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	SURFACE
	3” to 4”	Exterior siding, decks, fences, masonry, walls, ceilings, doors
	2” to 2 1/2”	Baseboards, cabinets, mouldings, furniture, stairs, railings, shutters, gutters
	2” to 2 1/2” angle sash	Window frames, casings, door 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 only about 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 from Ohio

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

## How to Clean Paintbrushes

Many of today's coatings are designed to dry quickly, making them especially difficult to clean out of paintbrushes. The resins bind to the brush filaments and set up 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.

Here are our recommendations to improve cleanup of brushes and lengthen the life expectancy of these tools. 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 heel of the brush 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 into the brush completely. There are many brands of hand cleaner that will work—some are liquid, while others are more of a thick paste that are scooped out of the container. Again, use the Painter's Comb to work paint out of the interior of the brush.
- Step 3** Rinse the brush once more 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.

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.



The first paint rollers were developed in England and were introduced in the late 1940s. Wooster began making them in 1951. 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

### Fabric

Synthetic or natural fibers attached to a backing. Holds then releases paint to the surface.

### Adhesive

Substance that bonds the fabric to the roller core.

### Core

Base of the roller cover, most often made of plastic or phenolic-treated cardboard.

## Types of Roller Fabric

FABRIC	CHARACTERISTICS
<b>SYNTHETICS</b>	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. In general, can be used with water- or oil-based coatings. Quality varies from professional to economy.
<b>SHEARLING</b>	Wool that is still attached to its tanned skin, also called lambskin or sheepskin. The original paint roller fabric, naturally shed-resistant. Exceptional capacity and release for excellent production. Expensive, but preferred by some professionals. Prolonged soaking can cause the cover to delaminate.
<b>50/50™</b>	High-performance blend of lambswool and polyester fibers. Wool provides maximum capacity and a smooth finish. Polyester helps fabric to resist matting.
<b>MOHAIR</b>	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.
<b>MICROFIBER</b>	Unique fabric which has a velvety texture. Tiny fiber tips deliver a uniform finish, great for smooth surface applications. Very good finish quality, but pickup and release are not its forte.
<b>POLYAMIDE</b>	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.

## Painter's Tip from Nevada

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.

## Roller Finishing Processes

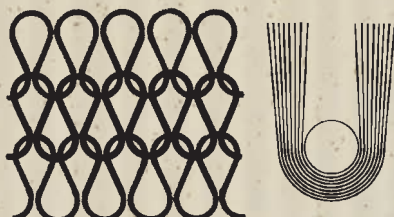
The manufacture of roller covers includes multiple steps that “finish” the cover and get it ready for painting. First, rollers are fluffed up and any longer fibers are trimmed off to improve coverage. Then they are beveled at the ends to prevent fat edges on the paint stripe and give painters added control 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.



## Fabric Facts: Knit vs. Woven

The vast majority of paint rollers are made one of two ways—knitting or weaving—as described below. New to the industry are “shed-resistant knit” fabrics, which combine the strengths of both. Made with the traditional knitting process and unique fiber technology, they provide high production rates with less shed. However, a true woven fabric will still provide a finer finish than a shed-resistant knit.

### KNIT

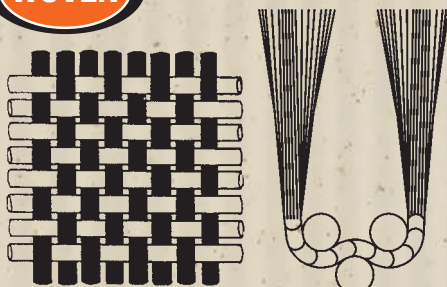


Backing

Pile Fiber

Both the backing and the pile fibers are different in knit and woven fabrics. In simple terms, knitted fabrics have a looped backing, and the pile fibers are secured to the backing with a single pass-through. The resulting fabric is more “open” than a woven, so it can pick up and release more paint for the fastest coverage. Knit rollers are recommended for flat, eggshell, or satin paints and stains.

### WOVEN



Backing

Pile Fiber

Woven fabrics have a backing with a tighter cross section. The pile yarns are made with a twist that helps lock the fibers into the backing, and they are secured using two pass-throughs. This “double lock” process results in a shed-resistant fabric that provides the smoothest, virtually lint-free finish. Woven rollers can be used with confidence in enamels, primers, and all paints: flat, eggshell, satin, semigloss, and gloss.

## Q. How do I choose the right cover for the job?

**A.** For brushes, it's the type of paint that matters (latex or oil). For rollers, it's the sheen (flat to gloss), because the higher the sheen in the paint, 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, a high-capacity knitted cover can be used. For a super-fine finish, it's perfectly okay to use a shed-resistant roller with a flat or satin paint, too!

## 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. Basically, for smooth surfaces you use a shorter pile for even application; 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	SURFACE
	3/16” or 1/4”	Untextured plaster, smooth wood, wallboard, drywall, metal
	3/8” or 1/2”	Most walls & ceilings, lightly textured drywall or wood, acoustical tile
	3/4” or 1”	Textured plaster or stucco, paneling, 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

1. 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.

2. 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 roll-off area.

3. 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.

4. 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.

5. 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.



### Painter's Tip from Virginia

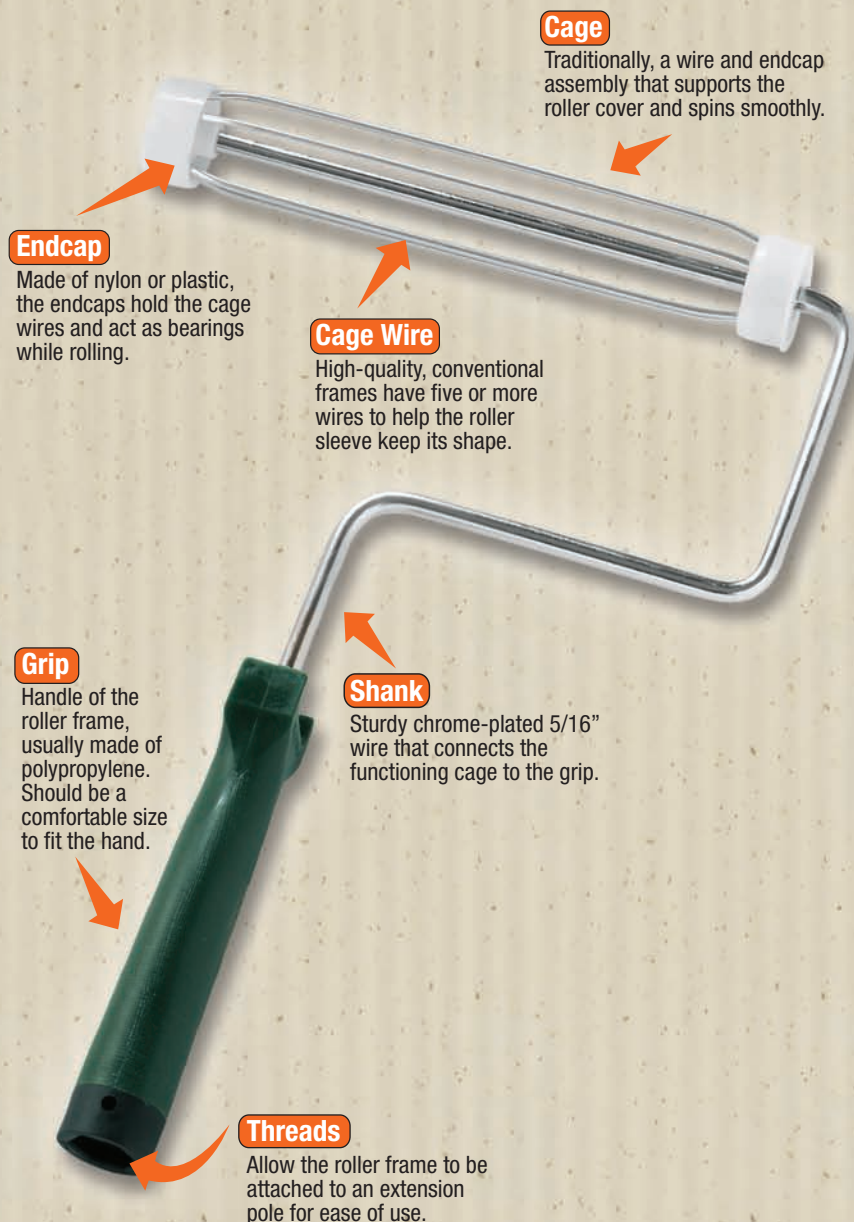
Pre-wetting is a simple way to make any brush or roller perform better and clean more easily. Wet it in whatever you plan to use to clean it.



## What to Look For in a Roller Frame

A roller frame that drags or sticks is a major frustration. No one should have to tolerate it. To make the job go faster and the coverage better, spend a few dollars more for a frame that spins smoothly.

### ROLLER FRAME COMPONENTS



It's the world's best-selling professional frame, so you should know and understand the features that have made it that way.

### SHERLOCK® FRAME



### Engineer's Tip from Wooster

Occasionally the Sherlock frame can develop a "squeak" while rolling. It may be caused by going from wet paint to dry conditions, or from storage in cold or dry climates. You can eliminate the squeak by hydrating the bearings! Simply put the frame into a bucket of clean water, making sure the entire cage is submerged. After a few minutes, shake the excess water off of the frame, install the cover, and enjoy squeak-free professional performance.

## What to Look For in an Extension Pole

A durable extension pole 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 from California

Lightly spray non-stick 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, the pole is easier to use, and it doesn't get stuck.

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

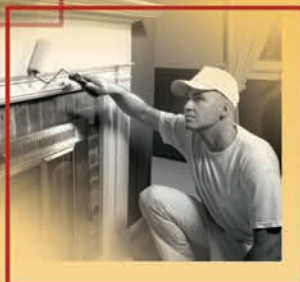
### JUMBO-KOTER® SYSTEM



### Painter's Tip from South Carolina

For a better looking paint job, use a brush to cut-in like you normally do, but 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.





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**PRO**

For more information about paint applicators and additional painting tips, visit  
**[woosterbrush.com](http://woosterbrush.com)**

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