fundamentals

The language of finishing

PART 2: APPLYING AND POLISHING

BY MARK SCHOFIELD

Wiping

Rubber

French polish

In *FWW* #229, I wrote about the often bewildering terms that woodworkers and finishers use to describe the task of preparing a surface for finishing, and for the finishes they use. As it happens, there are more linguistic land mines when describing how to apply a finish and how to give the surface a final polish. Understanding these terms will make you a better finisher, helping you understand your problems—and the solutions given by experts, too.

The right rag for a wipe-on finish

Wiping on a finish is a relatively simple process, but it's not without pitfalls. I wish I had a dollar for every finishing article I've read that suggests using a lint-free cotton cloth. Many cotton items from socks to underwear contain **lint**—residual flecks of fiber that gradually come loose and disappear after multiple washings. That's why an old, much-washed T-shirt makes a great application tool.

To check a cloth for lint, use it to dry a wine glass or clean a mirror with glass cleaner. Any lint will show up on the glass and will mar your project if you use a linty cloth to apply a finish.

Aside from lint marring a wiped-on finish, you may also encounter a problem known as **bleeding**. This occurs with oil finishes on open-pored woods such as oak when excess oil oozes from the pores long after you've wiped the surface dry. If you don't repeatedly wipe the surface, these droplets will dry into small, shiny dots that you'll have to sand off.

Bleeding finish

One important wipe-on finishing technique is known as **French polishing,** in which a **rubber** (a pad made from several layers of cotton cloth) is used to apply the multiple thin layers of shellac that make up this classic finish.

Photos: staff

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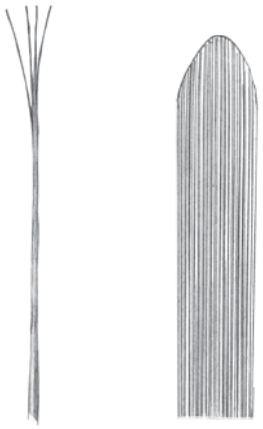
Brushing

Brush up your language skills

All brushes have **filaments**—the individual strands, natural or synthetic, that make up the body of the brush. Only a few, though, have **bristles,** a type of natural filament made from animal fiber. These are typically made from hog bristle, also known as China bristle because that is where the material comes from. Other fibers used in **natural-filament** brushes include ox hair and badger hair. All work well for oil-based finishes, shellac, or lacquer. The natural resilience of the fibers allows them to hold a lot of finish and distribute it evenly. Avoid using natural-filament brushes for waterborne finishes, however, because the filaments will absorb water and lose their resilience.

To apply waterborne finishes, use a brush with manmade filaments or **synthetic bristles**. These are mostly made from nylon or polyester. A particularly fine-strand filament is called **Taklon;** these types of brushes are great for applying a thin topcoat that leaves almost no brush marks. Synthetic-bristle brushes can also be used for other finishes and many consider them almost as good as top-of-the-line natural-filament brushes.



Natural or synthetic, look for filaments that are split and frayed at the ends. A brush with this characteristic, known as **flagging**, leaves fewer brush marks. For the same reason, look for a **chisel-ended** brush, where the filaments form a V at the end rather than being flat.

The metal that encloses the base of the filaments is known as the **ferrule.** On any brush you intend to keep, the ferrule should be made of brass or stainless steel to avoid rust that eventually can contaminate the finish.

Spraying

Spray turbine

Learn what to say before you spray

Spraying may leave a great finish, but learning all the terms makes it hard to get started. There are three areas you need to know about. The first is the source of compressed air for the spray gun, either a **turbine** (a self-contained unit with a built-in blower) or an air compressor. Both systems are defined as **HVLP** (high volume, low pressure). They use low air pressure to **atomize** the finish (turn it into tiny particles), so more of the finish stays on the workpiece instead of bouncing off and ending up as **overspray**.


Orange peel


Fisheye


Blushing

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Scuff-sanding

Wet-sanding

Steel wool

Auto polish

The last group of spraying terms has to do with the quality of the finish. Spraying is meant to speed up the finishing process, so you are aiming for an **off-the-gun** finish, one that needs no further work. Before you reach that nirvana, you will probably experience some problems. One of the most common is known as **orange peel**, a bumpy surface caused by too heavy a film or poor atomization of the finish. To fix it, you can cut back the supply of fluid and either increase the air pressure to the spray gun or reduce the viscosity of the finish.

Another problem when spraying fast-drying finishes such as lacquer or shellac on very humid days is **blushing**. This happens when water vapor gets trapped in the film of finish and creates a whitish haze. The solution is to add a blend of solvents known as a retarder to the finish to lengthen the drying time. A less-common problem is **fisheye**, small craters often caused by silicone contamination from old furniture polish or shop lubricants on the wood's surface.

Finishing the finish

Unless you are an expert sprayer, with any kind of built-up film finish you will probably need to work on the last coat after it has fully cured. There may well be small bits of dust known as **nibs** stuck in the finish; the surface may be marred by brush marks or perhaps small sags and runs on vertical surfaces. Or, you may not want a glossy appearance. The solution to all these problems is to rub out the finish using a variety of methods and fine abrasives.

The shine on the surface is referred to as **sheen,** and is a measure of the amount of light it reflects. A **high-gloss** sheen, sometimes called a **piano finish**, requires careful leveling and polishing of the topcoat. A less formal **low-luster** finish is easier to achieve.

Any high-gloss finish must be perfectly flat, so the first step is to level it by **wet-sanding** with wet-or-dry sandpaper lubricated with water and a tiny amount of dish soap. With some finishes, you'll want to lightly "**scuff sand**" between coats to level the surface. If you sand through the topcoat of a finish like varnish where each coat doesn't melt into the previous one, you will create a **witness line**. The only way to cover up this ragged edge of finish is to apply another coat or two and start leveling again.

High gloss

Low luster

Final polishing of a high-gloss finish used to be done with **pumice**, a finely ground lava, lubricated with mineral oil, followed by **rottenstone**, a kind of limestone. These days it is much easier to use polishing compounds and liquids formulated for polishing car bodies.

For a lower-sheen satin finish, rub the surface with 0000 (pronounced "4 ought") **steel wool** or a 4,000-grit **Abralon** pad. This foam-backed abrasive disk works well on flat and curved surfaces. After that you can apply some furniture polish or paste wax and rub or buff it out with a lint-free cloth, which gets us back to where we started. □

Mark Schofield, a former managing editor, edited FWW's finishing articles for more than a decade.

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