

# Instructions Exterior 450 Water Based Topcoat

## Step 1: Prep Sanding for General Finishes Exterior 450

All wood projects require preparation sanding. *If you skip this critical step, your finish may fail.*

### Preparation for Raw Wood Projects

See our video: [How to Prep Sand Raw Wood](#)

1. 120-grit sandpaper followed by 150-grit or 220-grit sandpaper. Do not over-sand with fine-grit sandpapers; this will close and seal the wood grain, preventing ideal color absorption. Also, do NOT use steel wool on water-based based finishes; the particles will get trapped in the finish and rust.
2. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
3. Let dry completely before applying General Finishes Exterior 450.

## Step 2: How to Apply General Finishes Exterior 450 Topcoat

**CAUTION:** Do NOT use Exterior 450 or any other clear coat, over white or light paints such as *GF Milk Paint*, or *GF White Poly* as it may cause yellowing. Any clear coat can become reactive over wood substrates or existing finishes, causing tannin or dye bleed-through regardless of priming. All of GF's white paints do NOT require a topcoat.

**NOTE:** Exterior 450 Topcoat is not intended for decks. It can be used on tabletops that do not receive direct exposure to sun and rain. As with all fine furniture finishes, wipe up spills in a timely manner to protect the finish.

### General Finishes Exterior 450 Topcoat Application Steps

1. [Watch product overview video here](#) (2:31 minutes)
2. Stir topcoat to reincorporate solids that have settled to the bottom of the can before and throughout the application process.
3. Thin as desired with distilled water; start with 5%, increase up to 10% by volume. Increase open time, if needed, with up to 5% [General Finishes Extender](#) if allowed by local regulations. GF Extender will improve flow and leveling and increase open time, which is helpful in dry climates. **California Residents:** Adding more than 2% of *GF Extender* will make the products non-compliant per SCAQMD Regulations. GF assumes no liability for the improper use of these products.
4. Apply 2-3 coats of Exterior 450. More coats will not improve durability.
  - **Hand application:** Apply a liberal amount of product using a synthetic bristle brush, foam brush, pad applicator or roller. Avoid pressure and excessive back-brushing. Brush along the wood grain using smooth, even strokes with light lap marks. Let lap marks dry; they WILL tighten down.
  - **Spray application:** Before spraying, strain topcoat through a fine-mesh filter. Spray wet films at 3-5-mil thickness. HVLP: 1.1mm-1.3mm spray tip, medium air cap. Verify tip sizes with your equipment supplier. [See our general guide for spray tip sizes](#). Keep your gun at a 90° angle, 6-8" from the surface. On large, flat areas, use wet, even patterns 6-8" wide. For narrow surfaces, reduce the fan pattern to 2-3" wide to reduce overspray. Overlap each pass 25% to conceal lines. Wear a full filter respirator (NIOSH/MSHA approved) and work in a ventilated space. [Visit this FAQ for more information on spraying techniques](#).

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5. Finish sand between coats with a fine-grade (220-320) foam sanding pad to improve smoothness and adhesion.
6. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.

**Ready for exterior use:** Allow 5-6 days before putting your project outdoors. Note, the UV additive in 450 Clear will protect the integrity of the finish but will not prevent the wood from changing color from sunlight.

NOTE: Exterior 450 is designed to let the water permeate the finish; as it dries, the water releases back out to allow the finish to tighten down again. Temporary cloudiness may occur as the finish dries.

**WARNING:** We do not recommend Exterior 450 stains or topcoats for exotic woods, ipe, teak or other dense, oily woods.

**Warning:** Do not use water-based products with Linseed Oils or Danish Oils.

### Dry Time

#### Dry Time Between Coats

**Dry 2+ hours** between coats in ideal conditions: 70°F/21°C; 50% humidity. **Be sure to allow adequate dry time.** You can tell if a water-based finish is dry if it forms a powder when lightly sanded with a fine-grade (220-320) foam sanding pad or 400-grit sandpaper. If in doubt, wait longer. Rushing the dry time can cause "blush," which is clouding in the finish due to moisture trapped between the layers.

#### Increase dry time if:

- Humidity is over 80%
- 3+ coats are applied
- Thick coats are applied
- To accelerate dry time in humid conditions, add [General Finishes Accelerator](#) and work in a space with good ventilation and air movement. If you decide to re-coat before the recommended time, test dryness.

#### Cure Time Before Use

Water-based finishes cure and harden for full use after 21 days in ideal conditions. Avoid placing heavy objects on surfaces that have not completely cured. Treat gently, and do not clean with commercial products during the curing period.

### Cleanup of Water Based Products

Application tools and materials containing water-based products can be cleaned with soap and water immediately after use.

#### Product Spills

Spills may be able to be removed from fabric and carpet if cleaned immediately with soap and water.

### Storage of Water Based Products

*Please be mindful of the way water-based products are stored and how long they have been in storage. They are not a forever product.*

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### Life of Product

Water-based products do not last forever, even when unopened. General Finishes products are **best used within 1 year**. However, the life of the product may be extended several more years with proper care and storage (see Storage Tips below).

Water-based products **can last 3-5 years** if the can is unopened, in good condition and stored in correct temperatures.

Product that is 3 years old will not look like product that is 6 months to 1 year old. You will see more stratification or separation as the product ages. Always stir thoroughly before using.

### Foul Smell

If your product has a foul smell, it is contaminated and no longer in useable condition.

### Clumps & Settling

Gravity can cause some solids to settle on the bottom of the can and slight separation on the top. This is normal. If working with older product stir with a paint mixing attachment on a drill.

If the solids dissolve and clumps smooth out after mixing from the bottom, the product is in good condition for use.

Inability to reincorporate large, chunky lumps after stirring for several minutes is an indication that the product has frozen and can no longer be used.

### Storage Tips

See video tutorial: [Tips on Storing Leftover Finishes](#)

Water-based finishes crystalize and form a skin due to evaporation when the air-tight seal on a can is broken at first use. The following best practices will increase the life of your product:

1. Pry open sealed lids with a paint can opener by hooking under the lid's rolled edge. The use of a screwdriver can disfigure the rim and lid, impairing a complete seal.
2. Keep lid closed while working. Pour what you will use into a bowl, paper cup, or plate, and close can lid as you work.
3. Clean the chime of the can thoroughly with a paper towel before closing to create a complete seal. Product falling into the chime can be minimized by using a pouring lid, such as Fitsall. Avoid wiping used brushes on the lid.
4. Pound the lid in place using a rubber mallet to avoid distorting the chime or lid. Dents in the lid from direct contact with a hammer can impair a complete seal. Alternatively, place a flat piece of wood over can lid and firmly pound shut.
5. Store in moderate temperatures. Avoid temperatures below 50°F/10°C or above 100°F/26°C. Keep from freezing. Frozen and heat-damaged product cannot be revitalized. Temperature-controlled spaces, such as a basement, are ideal for storage. Do not store product in an attic, garage, in direct sunlight, or next to something warm like a water heater or furnace.
6. Store can upside down to create a liquid seal, minimize evaporation and reduce the chance of crystallization. Decant remaining product from the can before stirring.

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7. Decant leftovers to a smaller container when the finish is almost used up. Alternative storage containers for water-based products are plastic FIFO bottles or glass bottles. Do not fill metal-lidded containers completely to prevent them from rusting.

### The following water-based product mixtures can be stored:

1. Product thinned with up to 15% [General Finishes Extender](#) or [General Finishes Accelerator](#) can be stored, with the exception of thinned [General Finishes Water Based Wood Stain](#).
2. Mixtures involving colors & sheens within the same product line, such as:
  - High Performance Satin + High Performance Gloss
  - Snow White Milk Paint + Coastal Blue Milk Paint
  - Amber Dye Stain + Merlot Dye Stain

### The following product mixtures should NOT be stored:

- Any water based product with thinned tap water; water often contains bacteria that will adversely affect stored paint.
- Topcoat + Stain or Paint
- Milk Paint + Chalk Style Paint
- Water Based Wood Stain + Dye Stain

## Furniture Care & Maintenance

### Cure First

Allow 21 days for the finish to cure before heavy use or cleaning with commercial products.

### Regular Cleaning and Maintenance

- Remove dust with a water-dampened cloth. Dust can build up over time and may scratch or dull finishes if not removed regularly.
- As with all furniture finishes, avoid using furniture polish, cleaners or dusting sprays that contain silicone, alcohol, ammonia, and anything acidic. Future finishes or touch-ups may not adhere properly or perform as desired over a contaminated surface. Some contaminants, such as silicone, seep through finish into the wood and often cannot be removed.
- Clean up water, alcohol and food spills in a timely manner and use placemats & coasters to protect the finish.

## Warnings and Warranties

### Exterior 450 Topcoat Warnings and Warranties

The UV additive in 450 Clear will protect the integrity of the finish, but will not prevent the wood from changing color from sunlight.

### Compatibility

## **Instructions Exterior 450 Water Based Topcoat**

Do not use water-based products with Linseed Oils or Danish Oils.

### **Limited Warranty**

General Finishes products must be tested to your complete satisfaction before using. General Finishes will not be responsible for color satisfaction, misapplication, nor compatibility with other manufacturer's products. General Finishes will be responsible only for the cost of our products, and not for costs such as labor, damage, or project replacement.

### **Contamination and Compatibility**

Our finishes are engineered as a system and are compatible with each other. General Finishes cannot guarantee an ideal refinish when applying our products on top of or combined with another company's products or over surfaces that have been in contact with waxes, polishes or sprays containing contaminants such as silicone. Test for adherence and aesthetics before beginning.

**FIRST AID:** Seek immediate medical attention if symptoms occur due to the following. Eye Contact: Remove any contact lenses. Flush eyes with water for 20+ minutes while lifting upper and lower eyelids. Skin Contact: Wash skin immediately upon contact. Remove contaminated shoes and clothing; clean and wash before re-use. Inhalation: Move to fresh air and loosen clothing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Ingestion: Call physician immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Prop 65 WARNING:** This product can expose you to Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [California Proposition-65](#).

### **WARNING:**

- Flat:  
WARNING HARMFUL IF SWALLOWED. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.  
Keep out of the reach of children. Use only with adequate ventilation. Do not swallow. Do not get on skin or clothing. Avoid contact with eyes. Avoid breathing vapor or mist. Keep container tightly closed when not in use. Wash thoroughly after handling.
  
- Satin, Semi-Gloss, Gloss:  
WARNING CAUSES EYE IRRITATION. CAUSES SKIN IRRITATION.  
Keep out of the reach of children. Do not get on skin or clothing. Avoid contact with eyes. Keep container tightly closed when not in use. Wash thoroughly after handling.