

## Instructions Enduro-Var II

### **Step 1: Preparation**

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

#### **Preparation for Raw Wood**

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

1. Sanding Schedule: 120-grit followed by 150- or 220-grit sandpaper.
2. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.
3. Let dry completely before applying GF product.
4. Do NOT use steel wool with water-based finishes; the particles will get trapped in the finish and rust.

#### **Preparation for Projects with an Existing Sealed Surface**

##### **1. Completely remove existing finish prior to use.**

2. Test entire finishing process over raw wood for adhesion before getting started. Contaminants from an existing finish can seep into the wood and impact results.

### **Step 2: How to Apply General Finishes Enduro-Var**

#### **How to Apply General Finishes Enduro-Var Water Based Topcoat**

**CAUTION:** Do not use over bright whites as the finish will yellow. Enduro-Var has a slight pink cast to the color in the can. This is normal. It will dry to a light amber color.

1. Watch [Enduro-Var II product overview video here](#) and a [comparison video of our topcoats here](#)
2. Work in a well-ventilated area.
3. Stir topcoat thoroughly to reincorporate solids that have settled to the bottom of the can before and throughout the application process.
4. Test for adhesion.
5. Thin as desired with distilled water; start with 5%, adding up to 10% by volume.
6. Increase open time, if needed, with 10-15% [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.
7. Apply 3 coats. 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 along the wood grain with smooth, even strokes & light lap lines. Avoid pressure and back brushing. Lap lines will tighten down as they dry.
  - **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 spray tip size recommendations here](#). 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](#).
8. Finish sand between coats with a fine-grade (220-320) foam sanding pad to improve smoothness and adhesion.
9. Remove dust with a vacuum, compressed air, an oil-free tack cloth or a water-dampened rag.

#### **Enduro-Var Ambers**

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General Finishes Enduro-Var is water-based, but it imparts a warm amber tone and brings out grain definition as a traditional solvent urethane would on exotic woods such as Paduk, Cocobolo, and Bubinga.

### Tinting & Toning Enduro-Var

Enduro-Var II can be used as a toner by mixing by volume with 5- 10% [General Finishes Dye Stain](#) or to enhance color tone. General Finishes Amber Dye Stain or General Finishes Vintage Cherry Dye Stain work well, or a 50:50 combination of both. Apply 2 coats of the tinted topcoat for a deeper, more vibrant color.

### High-Use Surfaces

[General Finishes High Performance Topcoat](#), [General Finishes Enduro Clear Poly](#) and [General Finishes Arm-R-Seal Topcoat](#) are recommended on high-use surfaces such as kitchen tabletops, kitchen cabinets or bath vanities instead of Enduro-Var because they have greater water and chemical resistance.

### WARNING: Incompatible Products

1. Shellac
2. Linseed Oils
3. Danish Oils

## Dry Time

### Dry Time Between Coats

**Dry 2+ hours** between coats in ideal conditions: 70°F/20°C; 50-70% humidity. 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. If in doubt, wait longer. Inadequate dry time can trap moisture and cause clouding. Cooler temperatures, high humidity and sealed substrates may prolong dry time.

### Increase dry time if:

- Humidity is over 80%
- 3+ coats are applied
- Thick coats are applied
- Applying over products from other brands
- Layering General Finishes water and oil based products:
  - Water over oil: Let oil-based products dry 72+hr before applying water-based products
  - Oil over water: Let water-based products dry 24+hr before applying oil based products
- To speed up drying 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 cured completely. 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 or General Finishes [Brush & Gun Cleaner](#) immediately after use.

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### 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 manner in which water-based products are stored and how long they have been in storage. They not a forever product.*

### 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 and Maintenance**

### **Cure First**

You have just finished applying a fine furniture finish. Treat gently until the paint or topcoat have fully cured. Allow 21 days for a water-based finish to cure and 30 days for an oil-based finish to cure before cleaning.

### **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.
- Remove fingerprints, cooking fumes and smoking residue with mild soap and water. These contaminants will not harm the finish, but they accumulate on surfaces and dull the original luster.
- As with all fine furniture finishes, avoid using furniture polish, cleaners or dusting sprays that contain silicone, alcohol, ammonia and anything acidic. Exception: We have successfully cleaned with Clorox wipes for occasional cleanups.
- Clean up water, alcohol and food spills in a timely manner and use placemats & coasters to protect the finish.
- 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.
- Avoid excessive exposure to direct sunlight, high temperatures or high humidity. These can damage furniture and finishes.

## **Warnings and Warranties**

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### Enduro-Var Warnings and Warranties

#### Compatibility

The following products should not be used under or over Enduro-Var for ideal results.

Incompatible Products:

- All oil based products. Enduro-Var ONLY ADHERES WELL OVER WATER-BASED STAINS, DYE STAINS, and RAW WOOD. It will adhere to an oil-based stain ONLY IF the stain is completely dry (minimum 4 days dry time). Use Enduro-Var over any other surfaces at your own risk.
- Shellac
- Linseed Oils
- 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 N-methyl-2-pyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### 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:  
DANGER CAUSES SEVERE EYE AND SKIN BURNS. HARMFUL IF SWALLOWED. CAUSES RESPIRATORY TRACT IRRITATION. Keep out of the reach of children. Use only with adequate ventilation. Do not swallow. Do not get in eyes or

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