

DOOR FINISHING AND CARE INSTRUCTIONS

Under normal conditions, all wood products contain some moisture, and wood readily exchanges moisture with the environment. This is true of all wood products, whether they are raw or finished. Although a finish will slow this process, wood will regardless react to changes in humidity and environment.

Wood will not change size or shape unless its moisture content changes due to humidity conditions of the environment. When humidity conditions are high, wood absorbs moisture and swells (or expands). In low humidity conditions, wood releases moisture and shrinks (or contracts).

Wood products perform successfully when correctly used in a proper environment. Sun Mountain selects and uses only properly kiln-dried woods with an 8% to 10% moisture content to ensure stability in climate controlled homes. Relative humidity inside the home should be maintained within a range of 40% to 50%. Homes without proper temperature and climate control will likely experience problems with dimensional change of the wood. Care should especially be taken during site storage and installation.

Other points to consider:

- Extreme moisture or dryness will cause panel expansion or contraction, joint separation, veneer checking or cracking, delaminations, bowing of the stile/rail, expansion or contraction of the stile/rail, and may include door failure. In exterior applications, if the door will be exposed to large amounts of direct sunlight or moisture, we recommend that a non-wood product be used instead.
- In seasonal climates doors may expand and bind against their jambs during the more humid seasons. Likewise, doors may pull away from their jambs during the dry seasons.
- If a door needs to be trimmed for fitting purposes, all exposed edges must be sealed and refinished immediately.
- Doors with a painted finish will reveal "seams" at the joints as natural wood movement occurs.
- If doors are ordered unfinished from the factory, **doors must be completely finished on all six sides within 14 days of delivery.** Finishing/sealing the door will minimize and slow the absorption of moisture but it will not eliminate it, so proper humidity levels are important throughout storage, installation, and use.

FACTORY UNFINISHED DOORS (MACHINE-SANDED)

If you order your doors unfinished from the factory, the center panels will be individually machine-sanded and, after assembly, the entire door will be machine-sanded to flush the joints and create a smooth, uniform surface. **Additional hand sanding is required at the jobsite before finishing** to remove handling marks, oil residue from fingerprints, surface blemishes, and other minor imperfections. Sun Mountain is not responsible for the appearance of any door not finished at our factory. We believe that the overall quality of the finish is primarily and directly related to the quality of the prep-sanding process. We recommend that onsite finishers follow the same process that we use below for our factory pre-finished doors.

FACTORY PRE-FINISHED DOORS

We believe that the final quality of the finish is directly related to and perhaps most importantly affected by the quality of the sanding prior to the first coating application. A bad finish can almost always be traced back to a combination of poor or nonexistent hand sanding, poor finishing materials, and/or a poor work environment. After machine sanding, doors are hand-sanded to 150-180-grit using rotary orbital sanders, about 15 to 20 minutes **per side**. Sticking and panel profile details are then finger-sanded, with particular attention given to the exposed end grain on the tops and bottoms of the panels. Minor dings and dents are repaired with a very little bit of water, a hot iron, and light sanding. Our stain is applied by an HVLP spray gun in a climate-controlled spray booth with air make-up system, allowed to penetrate the wood and air dry. A protective catalyzed vinyl sealer is then sprayed on all six sides of the door and allowed to air dry. After drying, the entire door is fine-sanded by hand (150-180-grit) again to develop an ultra-smooth surface for the topcoat. Glazes are then brushed on and wiped off, using the artist's discretion for highlighting and shadow. Finally, a durable, cabinet-quality, catalyzed-conversion varnish topcoat is sprayed, which when dry provides a beautiful finish that protects against scratches, nicks, dents, and moisture.

FINISH/GLAZE INSTRUCTIONS

Your finish quality is greatly affected by many factors including application equipment, finishing environment (temperature, humidity, dust), application technique, and wood preparation. To achieve the best possible finish, perform the following steps.

1. Sand door with 150-180-grit sandpaper. Use an orbital sander and hand/finger sanding.
2. Ensure work area is dust and wind free and between 60 and 80 degrees Fahrenheit.
3. Apply stain with HVLP or comparable spray gun. Our stain uses dye pigments in a low-VOC, low-HAPS acetone solvent base.
4. Apply seal coat. We use an industrial cabinet-quality vinyl sealer/catalyzed-conversion varnish system. A high quality catalyzed lacquer, varnish, or comparable product will work also.
5. Lightly sand (150-180-grit) to make perfectly smooth.
6. Apply glaze. Brush or spray on and wipe off. Leave glaze in corners and other areas for depth and highlighting.
7. Apply finish coat of a quality catalyzed-conversion varnish or lacquer product.
8. Completely dry in a dust-free environment after each coating application.

DISCLAIMER: Sun Mountain takes great care to provide an excellent quality factory finish. We cannot guarantee the results of a customer-applied finish.

FINISH MAINTENANCE

All finished wood requires regular maintenance to keep the finish looking as new as possible. For interior doors and trim, dust regularly and periodically wipe with a damp, not wet, cloth to remove dirt and other particles and smudges. While a mild detergent (such as Murphy's Oil Soap) may be used for cleaning, furniture and other wood polish and wax are not recommended as they will cause build-up and make the finish turn cloudy. Other products that may damage the finish and should not be used include vinegar- or citrus-based cleaners, paint removers, window cleaners, brick/siding washes, and any other industrial or abrasive cleaners. For exterior doors, the speed at which the finish will deteriorate is in direct response to the exposure of the door to direct sunlight, rain, and snow. Most exterior finishes deteriorate rapidly. At a minimum, Sun Mountain recommends that all of its exterior doors be inspected and wiped down every six months, in spring and fall, with a damp, not wet, cloth to remove dirt and other particles. Depending on exposure and weather conditions, exterior doors may need to be refinished as often as every year. To refinish, use a high-quality exterior lacquer or varnish system and follow the manufacturer's instructions for refinishing.