

# Installation Instructions

**Product:** SuperFlex Phenolic

Note: Read the entire Installation Instructions before beginning.

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## **Materials required:**

- ✓ A fiber knife or stiff scraper tool. Do not use a J-roller or hammer blocks. Fiber knives are available from CraftWood.
- ✓ Solvent-based or water-based contact adhesive. Roller or brush grades provide the best results. Spray grade contact adhesives generally do not contain sufficient solid content and are not recommended.
- ✓ A separator sheet(s). Required between the coated substrate and the coated SuperFlex Phenolic. The separator sheet (or two separator half-sheets) should be larger than the SuperFlex Phenolic.

## **Preparing the substrate:**

A smooth flat surface is essential for lamination. All dust, dirt, oil, previous finishes, and any other foreign material must be removed. CraftWood does not recommend the application of SuperFlex Phenolic to sheet rock, plaster, concrete, or cement.

All open-pore surfaces will require two coats of contact adhesive. Even particleboard should be considered for two coats of adhesive. Tight surfaces like MDF and hardboard may only require one coat of the contact adhesive.

Contact adhesives supplying high shear strength values are best. Coat both surfaces. If you spray the contact adhesive, never apply in a dry, scant, open pattern. You must have 100% coverage so no voids are present. Make sure to track the time of application accurately and follow the adhesive manufacturer's instructions as to open time. We recommend contact adhesive applications to be slightly above the adhesive manufacturer's recommended rates.

Open time for the contact adhesive is critical. If the contact adhesive is not fully cured, water and/or solvent vapor will be trapped between the substrate and the veneer, weakening the bonding between the components.

Wood expands across its grain in the presence of humidity. SuperFlex Phenolic left unmounted may take on moisture creating complications making application difficult.

**Installation using cold pressing with PVA adhesive:**

SuperFlex Phenolic works well when cold pressed with PVA adhesive. Weights and pressing times supplied from the adhesive manufacturer should be followed.

**Installation using manual pressing with contact adhesive:**

To ensure proper alignment, lay separator sheets between the substrate and the SuperFlex Phenolic. Make initial contact between the SuperFlex Phenolic and the substrate starting in the middle of the sheet, with a separator sheet on each side of the initial contact line. After making initial contact in the middle of the sheet, grasp one edge of the SuperFlex Phenolic and pull it taut. As an assistant pulls out the separator sheet from underneath, apply hard pressure to exposed area with a fiber knife in the direction of the grain to bond the two glue lines. Continue this process until the assistant completely removes the separator sheet from underneath the SuperFlex Phenolic. Repeat this process for the remaining half.

The entire sheet must be fiber knifed again in the direction of the grain. The key is to apply hard pressure to every square inch of the laminated surface. Do not use J-rollers or hammer blocks to apply pressure because these tools do not supply adequate pressure.

**Inspection prior to finishing:**

To inspect the SuperFlex Phenolic prior to applying any finishing materials, shine a light across the grain of the sheet to expose any imperfections. This may include poorly bonded areas or raised grain from relative humidity that the SuperFlex Phenolic may have encountered.

*Poorly bonded areas:* Changes in humidity or the introduction of moisture will cause poorly bonded areas to weaken and separate from the substrate, causing a low rise to appear on the surface.

If contact adhesives were used, the use of a warm iron set between cotton and wool may reactivate the contact adhesive and improve the bond. Make sure you place a protective material (craft paper) between the iron and the SuperFlex Phenolic before proceeding.

*Raised grain:* Additional sanding can correct this issue. Proper monitoring of the relative humidity conditions in the area should take place.

**Sanding:**

Special care must be applied when sanding SuperFlex Phenolic. We strongly recommend that no coarser grit paper than 150 grit should be used. It is best to use a single layer of paper by hand so you can feel the surface underneath.

**Preparing to finish:**

A test panel using the all the intended materials should be completed prior to final finishing, confirming the compatibility of all components.

Finishing should occur 24 hours after the initial lamination. You must be satisfied with the inspection of the surface prior to the application of finishing materials.

A finish sanding application by hand using 180 or 220 grit sandpaper may be required.

If you encounter any open seams in the panel face, a color-matched wood filler or wood patch putty can be applied. Do not over-apply wood filler to reduce the chance of sand through.

**Finishing:**

Water-based finishes must be tested before use to confirm suitability. Water will act to expand the wood, causing weak or poorly-executed fabrication to delaminate.

*Oil or stain:* Must be applied sparingly and wiped off immediately.

*Finish:* Apply abiding by the instructions provided by the finish manufacturer. CraftWood recommends the use of a sanding sealer followed by a UV inhibited polyurethane finish compatible with the seal coat. Allow the seal coat to dry completely before applying finish.

*Lacquer:* The surface coating should be selected on the basis of flexibility. Highly catalyzed lacquers cure rapidly and become extremely hard and inflexible. Apply two or three thin coats (less than 2 dry mils). Heavy single coats of lacquer may result in cracking.

Do not use linseed oil as a finish option for any CraftWood products.

CraftWood strongly recommends testing of all materials prior to final application.