

Application Instructions for Installation of Veneer Sheets

Step 1 Required Tools & Supplies

- A stiff scraper tool must be used when applying pressure during the lamination process. ***Do not consider using any type of J roller or hammer blocks.***
- Solvent based and water based contact adhesives are acceptable. 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 will be required between the coated substrate and the coated sheet. The separator sheet should be 1/8" hardboard and be wide enough and long enough to completely cover the contact cement on the substrate.

Step 2 Veneer & Substrate Preparation

- * A smooth flat surface is essential for lamination. All dust, dirt, oil, previous finishes or any other foreign material must be removed. It is not recommended that the veneer be applied to sheet rock, plaster, metal or cement.
- * All open surfaces will require two coats of contact adhesive. Even particleboard should be considered for two coats of adhesive. Tight surfaces like M.D.F. and hardboard may allow one coat of the contact adhesive.
- * Contact adhesives, which supply high shear strength values, are best. Coat both surfaces; if you spray the contact do not apply a, dry, scant, open pattern. You must have 100% coverage so no voids are present. Make sure you accurately keep track of the time of application and follow the adhesive manufacturer's instructions as to open time. We recommend contact adhesive applications to be slightly above the adhesive manufacturers 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 will occur.
- * Wood expands across its grain in the presence of humidity. Veneer sheets, which are left un-mounted, may take on moisture creating complications making application difficult. ***Dense grain woods like Maple are the most susceptible and require close attention.***

Step 3 Veneer Laminate Application

- * It is best to make initial contact between the sheet and substrate down the centerline of the panel. Grasp one edge of the sheet and pull it tight to remove the memory of the sheet.
- * Lower the sheet onto the substrate as an assistant removes the separator strip away from the centerline.
- * Using a scraper tool apply hard pressure to securely bond the two glue lines. Repeat this process until all the separator sheets have been removed from beneath the half sheet area you are laminating.
- * Repeat this process to the remaining half sheet.
- * The entire sheet must be scraped again in the direction of the grain or by the use of a pinch roller system. 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. These tools do not supply adequate pressure.***

Step 4 Inspection Prior to Finishing

- * To inspect the sheet prior to applying any finishing materials, shine a light across the grain of the sheet to expose any imperfections. This may include ridges; bubbles or additional sanding requirements due to grain raise from relative humidity the veneer may have encountered.
- * **Ridges-** this occurs when the contact adhesive open time is rushed and the two surfaces have been combined too early. The contact adhesive still contains either water or solvents causing expansion across the grain resulting in ridges in the face of the veneer. To correct this you must allow more time for the contact adhesive to dry. If you can lift the veneer laminate off the substrate showing stringing or elasticity in the glue line this indicates that the moisture contained in the adhesive has not been removed.
- * **Bubbles-** this occurs when there are gaps or areas, which have not had sufficient pressure, applied. Use a scraper device to make the initial pressure even if you intend to use a pinch roller. Drastic changes in humidity or the introduction of moisture will cause poorly bonded areas to weaken and separate from the substrate causing bubbles.
- **Making a small incision in the direction of the grain to allow the trapped air to escape can repair bubbles. The use of a warm iron set between cotton & wool may reactivate the contact adhesive and the bubble will stay down.** Make sure you place a protective material (craft paper) between the iron and the sheet before proceeding.

- If the area of the bubble will not stay down once the air has been released, it may require an injection of additional contact adhesives into the area.
- Sanding- Special care must be applied when sanding the sheets. 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. Do not use a sanding block.

Step 5 Finishing

• ***A test panel using the all the intended materials should be completed prior to the final finishing to confirm compatibility of the components.***

- Finishing should not occur prior to 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.
- Water based finishes must be tested before use to confirm suitability. Remember water will act to expand the wood. Weak and or poorly executed fabrication may cause lamination failure due to this exposure.
- Oil or stain: must be applied sparingly and wiped off immediately.
- Varnish: apply a thin coat of sanding sealer. Allow 12 to 24 hours for drying. Sand according to our guidelines, then apply varnish.
- 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 flexible veneer laminates.

Cold Pressing using PVA Adhesives

- If you apply the sheets using a cold press method in combination with PVA adhesives, you must scuff sand the back of the laminate sheet prior to use. The backer material contains a water-based acrylic resin, which can repel PVA adhesives.
- When using PVA adhesive application weights and pressing times supplied from the adhesive manufacturer should be followed.
- It is strongly recommended that testing of all materials is done prior to final application.

Pressure Sensitive Adhesive Applications

Pressure sensitive sheets are a very useful, convenient product with many different applications, ranging from refacing cabinets to "on the job site" repairs and alterations. Pressure Sensitive Sheet Veneers can save time and money for the user. Listed below are some simple steps to follow to ensure proper application for pressure sensitive Sheet Veneers.

- The memory in the sheet can be removed by laying it flat between two sheets of plywood. It is best if this is done while at the job site where it will be applied. This will acclimatize the sheets to the specific job site conditions. The ideal conditions for application are: 70 to 80 degrees F at 35% relative humidity.
- Pressure sensitive adhesive adheres best to a clean, dry, smooth surface. It can be applied to painted or varnished surfaces as well as sealed wood surfaces. Light sanding is recommended with 100-150 grit, no fill sand paper. In all cases, the surface must be free of all dust, dirt and grease. Applying a light spray coat of contract adhesive to the substrate will improve the bonding strength considerably. **TESTING PRIOR TO APPLICATION IS STRONGLY RECOMMENDED.** Pressure sensitive adhesives require approximately 48 hours to achieve the maximum bonding strength.

v Apply the veneer by peeling back a small section of the backer and, once positioned, lightly press down, check the alignment, and if correct continue removing the backer and pressing down the veneer. Once applied, the Sheet Veneer must be "SCRAPED DOWN" tightly with a scraper, DO NOT USE A "J" ROLLER. Apply pressure in the direction of the grain only to minimize scratches.

- Trimming or cutting of the Sheet Veneer can be accomplished with a sharp utility knife or scissors. It is recommended that the veneer be sealed and finished as soon as possible after application to avoid any problems with moisture penetration.
- For finishing instructions please, refer to step 4 & 5 inspection & finishing.