

Arbor Veneered Components

Arbor natural wood veneer can be applied to any substrate and is flexible enough to be formed around the tightest radii providing the ultimate wood finish. From vertical wall panels and partitions to ceiling panels and furniture surfaces, Arbor Pre-finished Wood Veneer is available in over 90 species with thousands of different stain colors and sheen levels.

Arbor is fabricated using traditional wood working tools, and components can be pressed, edged, formed and routed as with traditional veneers. When prefinish does not work, ArborPly unfinished can be used instead.

A complete range of matching wood edge tapes - either prefinished or unfinished are available in both pre-glued or unglued.

This data sheet provides general tips and processes for fabricating wood components using Arbor or ArborPly Wood veneer.

If you prefer, Koroseal is pleased to provide a full fabrication service. Koroseal is pleased to offer advice and solutions to all your wood veneer needs.

Substrates

Arbor can be bonded to the face of virtually any substrate that has been correctly prepared. Substrates include drywall, MDF, Plywood, Particleboard, glass, aluminum, steel & plexiglass.

Edges

Edges can be wrapped or edge-banded.

Adhesives

The type of adhesive used depends on the substrate. See the Adhesive Guide in this data sheet.

Backers

Balancing veneers or gator back should be used on wood substrates of 1/2" thickness or less.

Suitability

Arbor, AP3 and AP4 are suitable for all internal horizontal and vertical applications.



Adhesives

Select the adhesive type based on both substrate type and manufacturing method.

BONDING TO WOOD COMPOSITES

Substrate	Method	Adhesive	Application Guidelines
MDF (Preferred), Plywood or Particleboard	Cold Press	PVA Adhesive Titebond® Cold Press for Veneer is a high-quality solution for large-scale bonding of veneers to flat surfaces. It is specifically formulated for cold press laminating of wood to solid woods, particleboard, MDF, plywood and other porous materials. Titebond® Cold Press offers a moderate speed of set, a translucent glue line and contains none of the harmful or corrosive fumes typical of most contact cements. It also prevents bleed-through on open-grained and unbacked wood veneers.	Application Temperature Above 50°F. Open assembly time 15 minutes (70°F./50% RH) Total assembly time 15-20 minutes (70°F./50%RH) Minimum required spread Approximately 6 mils or 250 square feet per gallon Required pressure application 100-250 psi, depending on substrates Method of Application For most consistent coverage a mechanical spreader is recommended. Cleanup Damp cloth while glue is wet.
MDF (Preferred), Plywood or Particleboard	Hot Press	PVA Adhesive	Solids Above 50°F. Glue Spread 22-35lb/MSF/Side - 4 to 5 mils Lay up/Assembly Time: 5-45 minutes-Adhesive Dependent Press Temperature and Time Arbor & AP4 = 70 Deg.C. 3 minute cycle. Burp press for 10-15 seconds and close to complete the 3 minute cycle. AP3 = 370 -90 Deg. C. 3 minute cycle time Press Pressure 50 - 100/PSI Cure Time 24 hours

Substrate	Method	Adhesive	Application Guidelines
MDF (Preferred), Plywood or Particleboard	Hand Applied	Contact Adhesive Titebond® GREENchoice™ Neoprene Plus Contact Cement is a fast-grab, nonflammable adhesive that spreads easily over large surfaces. This adhesive specializes in bonding decorative veneer, to wood based composites. Its fast set and professional strength allows for immediate trimming, cut filling or machining after application.	Application Temperature 60°F. to 90°F. Service Temperature Range -20°F. to 200°F. Method of Application Brush, roller or spray gun Working Time Up to 2 hours Working Surfaces Surface must be clean and dry of any material that may deter adhesion. Sand nonporous surfaces. Store adhesive at 60°F. or higher for 24-48 hours before use. Apply a liberal coat of adhesive to both surfaces. Allow adhesive to dry before bonding surfaces. Position surfaces carefully before assembly because bonding is immediate upon contact. If surfaces do not bond immediately, the adhesive has been allowed to dry too long or not enough cement was used. In either case, repeat application. After assembly, press entire bonding surface with a plastic spreader. Trim and finish can be started immediately after bonding.
Drywall or Plasterboard	Hand Applied	Clay Adhesive Romans PRO-732 is a high solids, commercial grade clay-based wallcovering adhesive with a thick, rich consistency. It is designed to spread easily with a roller. It is a high solids adhesive formulated for applications requiring low moisture.	Prime Prime all surfaces with Roman's R35 Primer. Surface Preparation Level 4 or 5. Free from grease and other residues. Repair all unsound surfaces. Application Apply only when room temperature is above 50 Deg. F. Apply an even coat of adhesive with a roller. Avoid adhesive on wood face. Drying Drying time varies dependent upon temperature, ventilation and humidity in room. Clean Up Before the adhesive dries, thoroughly clean up any excess residue with clean water.
Aluminium, Steel, Mica, Plexi, Glass	Hand Applied	Clear Contact (3M 4693h) 3M™ Scotch-Weld™ High Performance Industrial Plastic Adhesive 4693H is a high viscosity, solvent-based, synthetic rubber adhesive.	Method of Application Brush, spray or flow an even coat to both surfaces. Ensure 100% coverage. Bond When both surfaces are touch dry, bring both together applying firm pressure and smoothing from the center out. be careful to insure no air is trapped between the surfaces.



Edge Banding

Real Wood Edge banding can be applied to square edges using pre-glued or unglued edging tapes through an edge banding machine. Koroseal can supply matching edge-banding tapes in 250 or 500' rolls. If you are utilizing AP3, the sheet can be slit and processed through a PVA edge-bander in the same way.



Pressing

Arbor and AP3 / AP4 can be pressed in either a hot or cold press using UF resin or PVA adhesives. Press times and pressures vary according to substrate, adhesive selection and ambient conditions. As a good rule of thumb, consider the data contained below:

Hot & Cold Press Spec-Data Sheet For Arbor/Arbor Ply Storage

Ideally, Arbor/Arbor Ply should be stored in the same area as the cores and backers to allow each to reach equilibrium at the same relative humidity. This tends to minimize differences in expansion and contraction characteristics between panel components once they are combined. Storage areas should not have excessive temperatures (in either direction) or moisture.

Lamination

Arbor/Arbor Ply may be used with normal adhesives such as Urea Formaldehyde and PVA. For the best lamination results, adhesive should be laid down uniformly on each side of the core material. We recommend the following for maximum results.

Cold Press

Solids: 45% minimum

Glue Spread: 22 – 30 lbs/MSF/side (4-to-5/mls) ¼" Nap Roller for spreading edges

Lay-up or Assembly Time: 5 – 20 minutes (adhesive dependent)

Stacking: Face-to-face stacking is preferred although not always necessary

Press Pressure: 25 – 150 psi. depending on components – normal 50/psi.

Press Time: 30-minute minimum (adhesive dependent)

Cure Time: 24-hour minimum before machining

Hot Press

Solids: U.F. 60-65% PVA 45-55%

Glue Spread: 22 – 35 lbs/MSF/side (hot press) – 4 to 5 mil.

Lay-up or Assembly Time: 5 – 45 minutes (adhesive dependent)

Stacking: Single Open

Press Temperature and Press Time (hot press):

Arbor & Arbor 4 Ply – 70°C 3-minute cycle; 1.5-to-2 minutes
Burp press, 10-15 seconds - Close press finish 3-minute cycle time.

Arbor 3 Ply—70°C to 90°C 3-minute cycle time.

Press Pressure: 50-to-100/psi

Press Time: 30-minute minimum (adhesive dependent)

Cure Time: 24-hour minimum before machining

*The above recommendations were developed based on proven applications. There may be some cases where the recommendations do not apply or need to be altered due to substrate pressure of press and environmental conditions.

Contact Adhesive Fabrication - Wood Substrates

In this example, we shall bond Arbor to one face of Solid Core Door, and leave the edges clean



1. Locate the flitch # (in this case 116148) on the bottom of back of the sheet . Insure that the sheet you are about to bond is from the correct flitch.



2. Locate the Sequence # (in this case 52) and insure that the face you are about to bond is the correct face for the elevation you are working on. Be certain that the sheet is oriented correctly.



3. Spray, roller or brush contact adhesive evenly across the back surface of the veneer. Insure that you cover 100% of each surface and leave to dry.



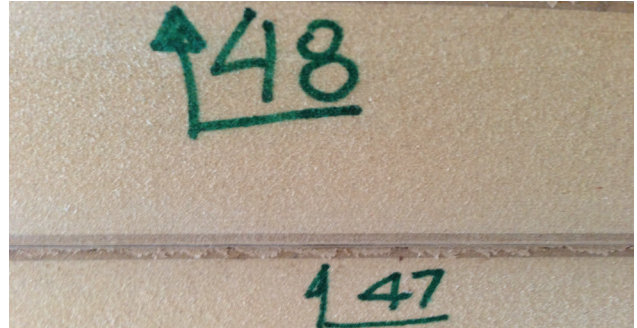
5. Place separator sticks on the substrate and then lay the veneer on the separator sticks taking care to insure the glued surfaces do not touch.



6. Remove the separator sticks one by one and smooth out the veneer working from the center outwards. Insure the veneer is pressed firmly down using a straight edge and any air expelled.



7. Using a high speed router, trim the excess veneer from the edges of the substrate.



8. Mark the bottom edge of the door with sequence numbers so as to insure correct matching on the job site.

Contact Adhesive Fabrication - Non Porous Substrate

In this example, we shall bond Arbor to one face of Plexi-glass and leave the edges clean



1. Spray, roller or brush 3M-4693H adhesive evenly across the two surfaces to be bonded together. Insure that you cover 100% of each surface and leave to dry.



3. Remove the separator sticks one by one and smooth out the veneer working from the center outwards. Insure the veneer is pressed firmly down and any air expelled.



2. Place separator sticks on the substrate and then lay the veneer on the separator sticks taking care to insure the glued surfaces do not touch.



4. Using a high speed router, trim the excess veneer from the edges of the substrate.