

Veneer Adhesive Guide

Iron-On Veneer Glue is the latest craze in veneering because it's easy, convenient, and inexpensive. This glue is applied to the substrate and the veneer back and allowed to dry. The veneer is then placed on top of the project panel and heated with a clothes iron. Heat Lock™ is excellent stuff... especially for small, curved or oddly shaped pieces. [Click here to learn more.](#) This adhesive is not a replacement for a vacuum press; it's a complement to it.

Liquid Cold Press Glue such as Better Bond X-Press is typically much thicker than yellow glue which often means less bleed-through. X-Press veneer glue dries to a hard film that does not allow as much "creep" or movement of the veneers on the substrate.

Better Bond X-Press™ veneer glue is available in 3 wood tones (light, medium, and extra dark). The use of a glue which is tinted to match the tone of your veneer is completely optional.

The benefit of the toned veneer is a less conspicuous glue line and a significant reduction in the after-effect of sanding the veneer too much. It is also great for filling voids in burl veneers. If you're not doing a lot of veneer work and just need a general purpose veneer glue, go with the medium tone version.

Pre-Catalized Powdered Resin (PPR) Glues are suitable for cold and hot pressing. The choice between a PPR adhesive and standard cold press glues should be based on the type of use the veneered project will be subjected to. PPR glues such as Ultra-CAT™ are more heat/water resistant. This type of glue is also ideal for bent laminations, crotch grain veneer, and thick veneers.

I use X-Press veneer glue for 95% of the panels I build. The powdered glue may offer more heat and water resistance, but any project that would be subjected to that much environmental abuse would not be a likely candidate for a high end piece of veneer to begin with!

Epoxy can be used in veneer work but it's expensive, requires mixing, and has a short life once it is mixed. Epoxy is best used for substrates where ordinary veneer glue will not adhere (plastics, etc).

The good news is that it's a highly effective grain filler for veneer that you are not going to stain or dye. The key is to use a plastic spreader and use just a little more hardener than you normally would. When it's dry, hand sand the panel with 150 grit paper and finish with your favorite top coat.

Polyurethane Glue bonds to anything. It is suitable for veneering when the veneer has to be pressed to a non-porous surface such as plastic. I would suggest using this glue only on small panels because it is difficult to spread, and it bleeds-through more than most adhesives due to the foaming action. It's also quite expensive.

Yellow glue (PVA) is probably the first glue that comes to mind when you say "glue" to a woodworker. Despite the recommendations of many woodworkers, I have never found yellow glue to be suitable for veneering. This type of glue never fully hardens, and thus allows the veneer to "creep" or move during seasonal changes in humidity. And because of its thin consistency, yellow glue also has a tendency to bleed through and discolor the veneer. Lastly, since yellow glue dries with a soft glue line, it is also very difficult to sand.

Hide Glue is the most traditional veneering adhesive. Its use dates back over 4,000 years ago to Egyptians who used it on furniture for the pharaohs. The method is called hammer veneering which derives its name from the use of a tool called a veneer hammer. The hammer is used to press the veneer sheets onto the substrate.

The method also requires a means of heating the glue typically in a "double boiler." Hide glue is very durable and it can be re-heated and reactivated if bubbling occurs. Hide glue can not be used in a vacuum press unless the appropriate salt or urea is added. For those interested in hammer veneering without the use of hide glue, check out the FSV adhesive below.

FSV or Flex-Pro is a good adhesive for paper-backed veneers when a vacuum press and a cold press veneer glue can not be used. This type of adhesive is not suitable for unbacked wood veneer.

It is applied in a manner similar to contact cement and has a very high initial tack but it dries harder and doesn't allow delamination when cured. Generally speaking, it should be used on porous substrates but I've had success using this glue to veneer over [painted window and door jambs](#) as well as stair stringers. It is also an

excellent adhesive for those who prefer the traditional hammer veneering method.

Contact Cement is available in two versions. One is solvent-based and is highly flammable. It emits dangerous fumes that can linger in the shop for days.

Thanks to advances in chemical technology, there are now water-based contact cements which are non-toxic and work as well or better than the solvent-based type. For several years, water-based contact adhesives were considered inferior to the solvent-based cements (and they were inferior) but this has changed dramatically with the introduction of water-based cements such as Titan DX™.

Keep in mind that contact cements are only suitable for use with paper/wood backed veneers.

Veneer Glue Comparison:

Glue	Pro's	Con's	Comments
Better Bond™ X-Press Veneer Glue	<ul style="list-style-type: none"> - Fast drying (1 hour) - Easy to work with - No mixing required - Inexpensive - Cures to a hard film - Penetrating bond - Available in several tones 	<ul style="list-style-type: none"> - Will not withstand extended periods of moisture or heat - Not suitable for use with shop-sawn veneer 	I prefer this glue over the others. It consistently yields excellent results.
Ultra-CAT™ Powdered Resin (PPR) Glue	<ul style="list-style-type: none"> - Withstands heat/moisture - Inexpensive - Extremely durable - Penetrating bond - Cures to a very hard film - Excellent for curved work - Tinted to a wood tone - Long open-time 	<ul style="list-style-type: none"> - Requires mixing - Short pot life once mixed - Requires up to 6 hours of pressing - Contains chemicals that are hazardous 	This glue can be thermoset with the use of a heating blanket over the vacuum bag which makes the bond even stronger. Ideal for shop-sawn veneers.
Flex-Pro™ FSV Glue	<ul style="list-style-type: none"> - Bonds backed veneer - Fast drying - Stronger than contact cement - Dries hard - Penetrating bond - No harmful fumes - Non-flammable - Allows slight re-positioning 	<ul style="list-style-type: none"> - Expensive - Hard to find - Requires adequate pressure via pinch roller or scraper tool 	Ideal for backed veneers. If you have a vacuum press, use cold press veneer glue instead.
Heat Lock™ Iron-On Veneer Glue	<ul style="list-style-type: none"> - Very easy to work with - Dries with a rigid glue line - Cleans up easily - Penetrating bond - Great for odd shaped pieces - Can be used to make custom edgebanding 	<ul style="list-style-type: none"> - Expensive compared to regular veneer glue - Your spouse may not appreciate the clothes iron being left in the workshop 	This glue definitely has its uses. Makes veneering a curved drawer front a snap!
Solvent-Based Contact Cement	<ul style="list-style-type: none"> - Easy to find - Relatively easy to use 	<ul style="list-style-type: none"> - Highly Flammable - Emits VOC's - Does not allow repositioning - Does not fully harden - Works with backed veneer only - Susceptible to water damage - Requires adequate pressure via scraper tool 	I simply won't use this type of adhesive in my shop because of the odor and toxicity.
Titan DX™ Water-Based Contact Cement	<ul style="list-style-type: none"> - Non-flammable - Low order - No VOC's - Easy clean up - Water resistant - Very high coverage ratio 	<ul style="list-style-type: none"> - Does not allow repositioning - Does not fully harden - Works with backed veneer only - Requires adequate pressure via scraper tool 	For backed veneers, this is stuff is great. Look for ones that do not contain Neoprene.