

Choosing and Preparing Veneers

The first steps matter most

BY CRAIG THIBODEAU



By the roll or by the sheet. Straight-grained veneer most often comes in rolled-up leaves, up to 10 ft. long (above). Fragile burls are packaged and shipped flat (right) to prevent damage. Veneers are available in a huge variety of species (below) that you can't find readily as solid stock.



Veneer offers a wide range of furniture design possibilities because it comes in many sizes, figures, and wood types—many more than can be found in solid wood. With a vacuum bag, it's easy to make veneered doors, panels, cabinet tops, and other components. But the first step in working with veneer is learning how to purchase, cut, join, and seam sheets of veneer to get ready for glue-up.

Commercial veneer—a forest of options

I almost always use commercial veneer—instead of the thicker veneers some woodworkers saw themselves. The pre-cut product is more convenient, and it offers consistent thickness and a wider variety of species and sizes. You can buy commercial veneer with a paper backing or in “raw” form without a backing. I prefer the raw variety because it lets me use both faces of every leaf to create decorative matches. It's possible to buy a stack of veneer leaves cut consecutively from the same log for beautiful matching patterns. Raw veneer is also thicker



Out of the box

The first steps are marking the leaves for reference, taping up any checks or splits, and flattening.

MARKING AND MENDING

Mark the flaws.

Thibodeau scans each sheet for knotholes, cracks, and other defects, circling each with chalk so he can repair them with tape or trim them away later.



Basic prep. Number the sheets in sequence to keep them in order for matching. The ends of long, rolled sheets often suffer from checking. Blue painter's tape prevents the checks from growing.

FLATTENING



Flatten a wavy burl. Thibodeau soaks bumpy sheets with commercial flattening solution, puts brown paper between the sheets, and then puts them between MDF cauls in the vacuum press for 30 minutes.



than backed veneer, leaving more room for sanding or mistakes. Buying commercial veneer typically means buying online. Look for a dealer that specializes in veneer, with a website that provides photos of actual inventory.

How much is enough?

First, create a project cutlist to determine how much veneer you'll need. Measure the overall size of each veneered panel in the piece (veneered on both sides), add a couple of inches to the length and width of each panel for trimming and sizing, and add up the total.

For panels that need a decorative match, specify the number and size of matching leaves needed to create it. Also note any pairs of panels that need to be identical, like opposite sides of a cabinet or two matched doors. You'll need twice as many matching veneer leaves to make each set. Because of



Still wet. When the damp burl first comes out of the press, it is supple like leather. Keep changing the paper and repressing for a few hours at a time until the paper comes out dry.



Trimming and taping

An invisible seam requires straight, clean cuts and two types of tape.



Align the leaves. For a pair of book-matched glue-ups, Thibodeau aligns a set of four leaves, using an easily identified feature like a pin knot or swirling grain line shared by all four (top). Tape the stack together in that alignment and cut the seam with a sharp veneer saw.



Joint the edges. After cutting the seam edges, joint them square and smooth with P150-grit sandpaper mounted on a long, flat block.

this, the final number of leaves is as important, or more so, than the total square footage. Last, buy extra to prepare for mistakes and the unexpected. I add up to 20% for straight-grain veneers and up to 50% for figured or burl veneer, making sure the extra leaves are from the same consecutively cut bundle. The extra cost is easier to bear than trying to restock in the middle of a project.

Preparing veneers

Except for burls, veneer is typically shipped in rolls. When you're ready to use your veneer leaves, unbox and unroll them and give them a little while to relax back into a mostly flat state. Mark any defects such as cracks and splits with chalk. The leaves come

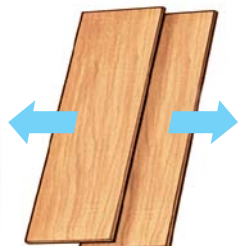
stacked in the order they were cut. Label one end of each piece for reference, numbering them sequentially. This keeps them in order as you flip them around looking for the perfect match.

Veneer is fragile stuff. Burls may have some breakage or cracks depending on how well they were shipped. Typically the ends of straight-grained veneers have some cracks or splits that can be taped together as you would a jointed seam (see above). But even if the veneer is not damaged, tape helps prevent splitting. Carefully tape back together anything that is broken, just in case you need it later. Also tape around the perimeter of the burls to prevent more breakage during shuffling and sorting. Even with these steps, be prepared for a few inches of waste on each end.



SLIP-MATCH

This match marries identical or similar leaves oriented in sequence. The match can create an appearance of continuous grain, or of a repeating pattern (as in the sideboard at left).



BOOK-MATCH

This match consists of two consecutive, eye-catching leaves oriented to mirror one another. It is ideal for door panels, tops, or even drawer fronts (as in the game table shown here)—any place that calls for decorative symmetry.





Blue tape first. Blue painter's tape has a little stretch to it. Pulled taut across the seam, it retracts slightly after being pressed down, helping to pull the joint tightly together.



Burnish it. Thibodeau uses a brass brush to press the tape down firmly and ensure that it won't loosen.

Keeping veneer in good shape long term calls for very consistent humidity and temperature, something most home shops can't provide. Sandwiching veneer—especially burls—between sheets of MDF can help protect it from the environment.

The perfect shape? Flat

To get a smooth, unblemished surface on your work, the veneer must be flat. You can press mildly wavy veneer, but buckled or heavily distorted pieces need flattening first. To do this, thoroughly dampen both sides with flattening solution. Let the moisture penetrate for a few minutes, then lay each piece of veneer between sheets of brown paper and put them in a vacuum press between ¼-in.-thick MDF cauls. You can stack several layers to save space as long as there's paper between the layers.

Keep the veneer under pressure for roughly 30 minutes, then change the soaked paper for fresh sheets. It is important that the veneer be dried thoroughly, because veneer that's damp at glue-up may shrink at the seams afterward. So leave the veneers in the press and continue changing the paper every few hours until the paper comes out dry. Now put the dried veneer between sheets of MDF to keep it flat until it's ready to be used. Don't leave flattened veneer uncovered very long or it will distort again and you'll need to repeat the flattening process.

Put the pieces together

Book- and slip-matches in straight-grain veneer are the most basic decorative matches, and they are a great place to begin. A simple way to visualize a book-match is to hold a mirror vertically along the proposed joint. The reflection will show the mating side of the match. Slide the mirror around to find different patterns. Once you've found the perfect pattern, mark the seam with pencil or chalk along the mirror edge.



Then veneer tape. On the show face of the joint, Thibodeau applies a non-perforated paper tape with a water-activated gum adhesive (above). Let the sheet dry under a piece of MDF before removing the blue tape on the glue face (below).



Creating a four-way match

After you've done a book match, go to the next level with a four-way match. It starts with four consecutive leaves. Tape them up in two book-matches, then book-match the results.



Beauty squared. The top for this dining table was glued up with a four-way match of elm burl. The match consists of four consecutive leaves oriented so that each leaf mirrors its neighbors.

To cut the seam for a decorative match, the veneer leaves must be stacked and aligned precisely. Look for telltale grain markings that appear on each leaf and line them up leaf by leaf in the stack. Tape the stack together at this spot, then move to another and repeat. With the stack aligned and taped, you're ready to cut.

To ensure a straight, tight seam, use a high-quality veneer saw and a straightedge cutting guide. A straight length of square stock works well. Glue some P100-grit sandpaper to the bottom for a

Online Extra

For tips on sharpening a veneer saw and getting the most from your vacuum press, go to FineWoodworking.com/extras.

good grip. Finally, a self-healing mat like those used for sewing lets you cut deeply while hugging the straightedge.

Gradually cut through the veneer stack. Let the saw do the work and don't force the cut. It may take a couple of passes. Afterward, use a straight, flat sanding block to remove any roughness or tearout on the edges. Slide the cut edge of the stack off the edge of your bench $\frac{1}{4}$ in. or so and hold the stack tight by pressing down with a straightedge. It should take only a couple of passes with the sanding block to joint the cut edge. Repeat the process on any other edges that need cutting.

Remove the tape and lay out the leaves as they will be joined with the show face down. Use blue tape to pull the joints tight. Flip the sheet over and apply gummed veneer tape to all



Mirror trick. On a single sheet of burl, Thibodeau uses a pair of hinged mirrors to scout out an eye-pleasing pattern.



the joints. Wet the tape on a moist sponge and quickly lay pieces along each of the joints. Wipe over each joint with a paper towel to press down the tape and remove any residual moisture in it. Once all the joints are taped, cover the veneer with a piece of MDF until the tape is dry, then flip the sheet and remove the blue tape from the glue face. The veneer is now ready for glue-up.

A four-way match in flattened burl

A four-way match is two book-matches that are then book-matched to each other. First, use two mirrors taped together and held at 90° (a drafting triangle helps) to find the best orientation. Then mark both edges along the mirror with chalk. Stack the four pieces of veneer in order and tape them together, then trim the stack about $\frac{1}{2}$ in. outside the marked chalk lines. Untape the stack and begin aligning the four leaves using the grain markings to orient the pieces. Then retape the stack and cut through both chalked lines. Lightly joint both cut edges with the sandpapered block.

Untape the stack again and flip some of the pieces over to see how the book-matched pieces fit together. Start by aligning the grain to create the two-piece book-matches. You may need to shift the veneer a bit from side to side to get the best match. Don't worry about any mismatch at the other seam; you'll be re-cutting the final joint. Secure the first two joints with blue tape (this is the show face), then flip the pieces and fully tape the seams on the glue face with tape across the joints and down the length of the joints. Flip the two pieces and remove the tape from the show face.



Now line up the last seam. If it doesn't match perfectly, stack the two pieces and align the grain markings at the seam as before, then cut both pieces at once to get a matched seam. Joint the edge with sandpaper and lay the pieces out again to check the seam. If the grain lines up properly, you're ready to tape the joint. Once you've used the blue tape on all the seams on the glue face, clean any remaining blue tape off the show face and trim the veneer to close to its final size. I typically leave veneer sheets

about $\frac{1}{2}$ in. oversize for pressing and do the final trimming after glue-up. Veneer-tape both seams. Slide the veneer under a piece of MDF and when it's dry, remove the blue tape from the glue face and you're ready to use it. □

SOURCES OF SUPPLY

VENEER

certainlywood.com
veneeronline.com

VENEER TAPE

34-gram white veneer tape, 20mm wide, veneersystems.com

FLATTENING SOLUTION

joewoodworker.com
vac-u-clamp.com

ARNO VENEER SAW

thebestthings.com



Craig Thibodeau is an award-winning furniture maker in San Diego.



2 Trim the seams. After aligning similar marks on all four leaves and trimming the first seam, Thibodeau uses a drafting triangle to align the straightedge squarely for the adjacent cut.



3 Tape up the halves. Secure the first set of book-matches with blue tape.



4 Re-cut the second seam. Align the figure along the second seam and trim it straight before taping it up.



5 Tape up the last seam. Pull together the last seam with blue tape as before. Then gum-tape the seams on the show face, let the sheet dry under MDF, and remove the blue tape.