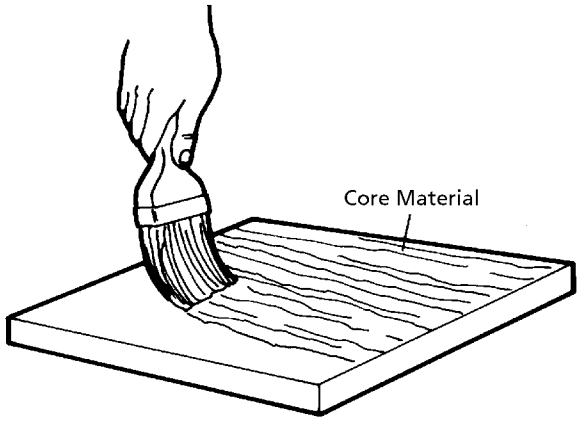
HOW-TO BOOKLET #3071

PLASTIC LAMINATE

TOOL & MATERIAL CHECKLIST

- ❑ Plastic Laminate
- ❑ Buffer Block
- ❑ Plastic Laminate Bit
- ❑ Fasteners
- ❑ Portable Electric Router
- ❑ C-Clamps
- ❑ Plastic Laminate File
- ❑ Straightedge
- ❑ Caulking Gun Shell
- ❑ Silicone Caulking Compound
- ❑ Contact Cement
- ❑ Hammer
- ❑ White Glue
- ❑ Countertop Core Material (Plywood or Particleboard)
- ❑ Bristle Brush or Notched Adhesive Spreader
- ❑ Kraft Paper or Pieces of Trim Molding (Lattice)

Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.



Apply adhesive to core material. You may need a couple of coats since material is porous. Let dry.

One of the most popular materials for covering countertops is plastic laminate—a thin, hard plastic that offers a durable, liquidproof, and easy-to-clean surface. The material is fairly easy for a do-it-yourselfer to install. However, a plastic laminate project is exacting in measurement, cutting, and gluing; patience is required.

Plastic laminate is available in a wide range of colors and patterns. It also comes in several sizes and thicknesses. We recommend the 2x4 to 5x10 foot by 1/16-inch thickness for kitchen and vanity countertops, depending on the size of the countertop, of course. The base to which the laminate is applied should be 3/4-inch-thick plywood or particleboard for best results; if you use plywood, buy A/C plywood faces and use the A (good) face of the plywood for the laminate surface.

But before you buy any "pieces" for the top, be aware that many home center stores and building material outlets sell preformed countertops for kitchen base cabinets and vanity cabinets in a range of lengths and a variety of laminate patterns and colors. And many of these stores can have tops built for your specific project, including sink cut-outs, mitered returns, and backsplashes. It may be less expensive and troublesome to have the top custom-made to your measurements than do it yourself. Ask a salesperson about this.

LAMINATING PROCEDURES

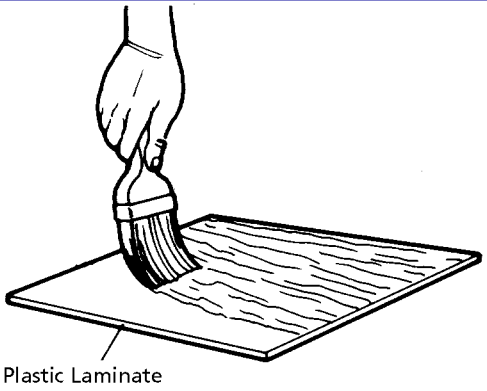
Plastic laminate is strong material, but in sheet form—without backing—it is brittle and can crack and break easily. Therefore, handle it with care.

You can use a table saw with a laminate blade or a sabre saw, also with a laminate blade, to cut plastic laminate. However, the best tool for this job is a router with plastic laminate bits. The cut will be smoother and probably more accurate; saw teeth tend to "splinter" the edge of the material. You also can use a laminate scriber and razor knife to cut the material. Scribing is done from the back side of the laminate. It then is broken over a straightedge at the scribed line. It is suggested that you practice this cut on scrap material before you try it on the good stuff. In this booklet, we describe the router technique; it is easier than the other methods. Good quality routers are fairly inexpensive and you can use a router for many home maintenance and improvement projects after the countertop job is complete. Consider it an investment.

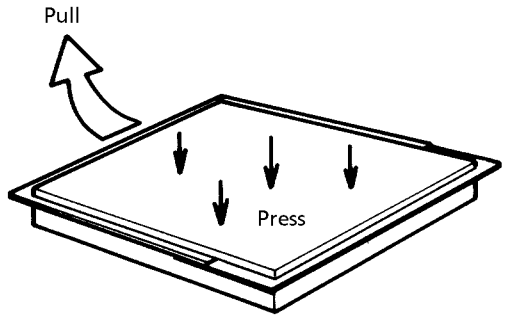
1. Measure the length and depth of the countertop required. Most countertops are 24 to 25 inches deep, but there are exceptions depending on your specific cabinet. Always allow about 1 inch of extra material. If the countertop turns a corner, allow even more extra core material and surplus laminate.

   When measuring and estimating materials, keep in mind that the countertop should overhang the base cabinet by an inch or so along the front and the side edges. The overhang at the front is usually an inch but can be as much as 3 or 4 inches. Test to see whether a large overhang will interfere with the opening of drawers or doors. If so, raise the countertop on shims made of strips or blocks of wood. Be sure that the overhang in front covers the shims sufficiently to hide them from view.

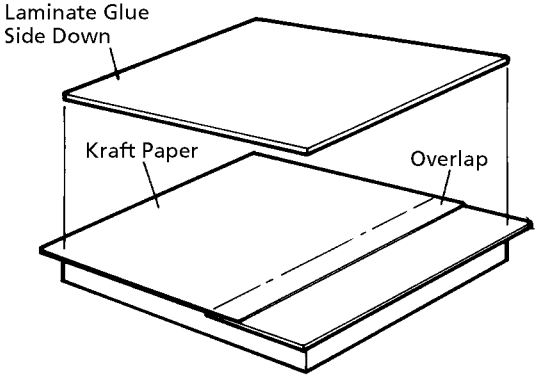
   If the plan calls for a backsplash, cut it now. Backsplashes may be as low as 2 to 4 inches, but most homeowners find that backsplashes that fill the entire wall between the counter and bottom of wall-hung cabinets or shelves look best.



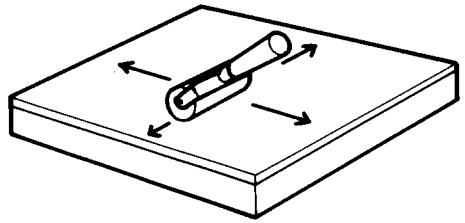
Apply adhesive to laminate. Have plenty of ventilation if adhesive is the solvent type.



Press down on laminate as paper or molding is removed. Once surfaces of core/laminate touch, the laminate can't be moved or reset on the core.



Separate surfaces with sheets of kraft paper or lengths of molding. Then align laminate with the core material and remove paper/molding for bond.



Roll laminate so its entire surface touches the core material. Or you can use a hammer and buffer block of wood to tap the laminate tight to the core.

2. Cutting and joining the core material is next. As mentioned above, the core can be plywood or particleboard—or even chipboard.

   Make sure the base cabinets are level. If not, shim them level with wedges or shingles. Cut the core material to match the cabinets, including any overhang at the front edge of the cabinets.

   You probably will have to join one or more pieces of core material in order to get the needed length. If so, butt-join the pieces with white glue and tack the joint with corrugated steel nails across the seams.

   Mitered corners are not recommended for turning corners since it is very difficult to cut a true 45-degree angle on a wide piece of countertop core material. A plain butt-joint is easier and since it will be covered with laminate, any

small errors won't show. Once together, have a helper help you turn over the top. On the reverse side (the core side that will face down toward the floor) attach strips of wood about 3/4x2-inches across the joints. Use glue and coated nails. Drive the nails in an alternating pattern along the strips, called "battens."

Also, faster battens around the front of the core and at its ends. This forms a "lip" or edge for the top. If the core thickness is 3/4 inch and the batten is 3/4 inch, the thickness will be 1-1/2 inch, which is standard.

3 Once you have assembled and carefully fitted the core material to the cabinets, the plastic laminate may be applied.

In cutting the laminate, you will be dealing with large pieces of laminate and possibly edge strips. You can buy pre-cut edge strips (ends) at many home center stores, if you don't want to cut them yourself from laminate sheet goods. The strips are marked left and right for left and right ends and are made for pre-formed tops, although they can be used for post-formed tops. When cutting the laminate you will want to have the closed edges visible—facing the direction where they look best. Keep this in mind as you make the cuts.

Several router bits will be helpful in cutting. One bit is the flush trim bit which cuts the laminate exactly flush with the edge of the core piece. Another is the overhang trim bit, which cuts the laminate so it will overlap the core by 3/8 inch. Still another bit is the bevel trim bit used to finish the plastic laminate edges at the countertop edges at a slight angle. Also helpful is a home-made straightedge: a piece of plywood cut about 9 inches wide and 8 feet long. Secure laminate to the straightedge with C-clamps, and then cut the laminate down to manageable size before you start the project.

To assure a clean, true edge, fasten the laminate to the plywood's or particleboard's factory-cut edge. (See illustrations on cutting details.)

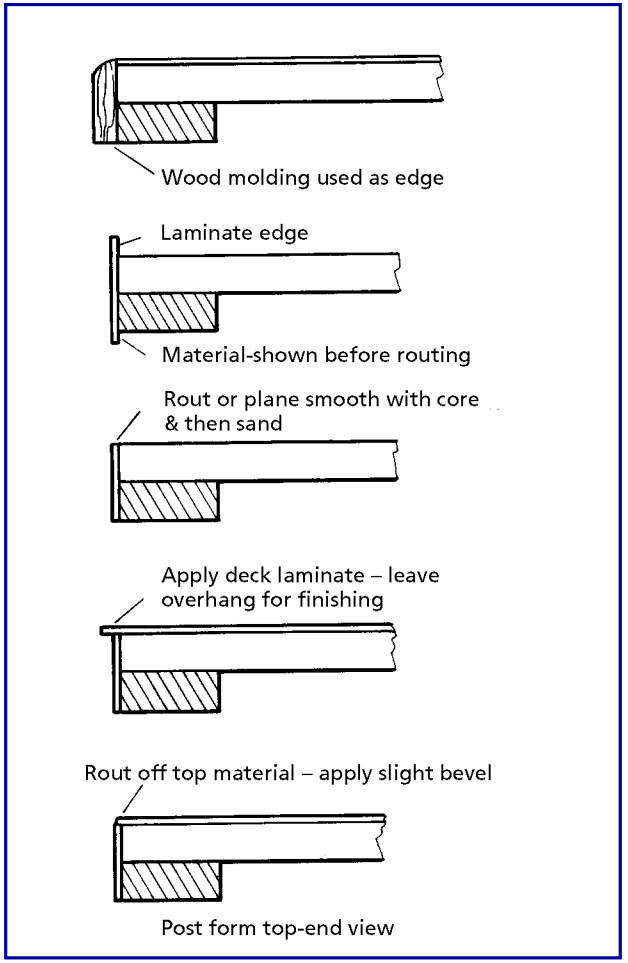
If there will be edge strips, cut them on the straightedge and clamp the laminate in place so that 1/8 inch overhangs. Trim the laminate with the flush trim bit, adjusting the guide on the tool if necessary so it rides on the middle of the laminate edge. The idea is to cut a clean edge.

Reclamp the laminate on the straightedge so that the laminate overhangs by the width of the bit plus the width of the edge. For example, assume the edge is to be 1-1/2 inches wide. The bit is 1/2 inch and will make a 1/2 inch kerf or cut. Since the edge is 1-1/2 inches, clamp the laminate leaving a 2 inches overhang. When you make the cut, a clean 1-1/2 inch edge will fall off. Repeat for as many edges as needed.

To cut the top, follow the same general procedures as given for cutting edges. Cut the top 3/8-inch to 1/2 inch larger in both length and width than the dimensions of the top. If you need to cut curved pieces, clamp the piece onto the top of the item to be covered. Then cut with an overhang trim bit. This will leave a 3/8-inch overlap, which can be trimmed later with a flush trim bit. A flush trim bit also can be used to trim any curved laminate.

4 Bonding the laminate to the core material is next. Contact cement usually is specified for laminating. If the cement is not the water-based type, use it with plenty of ventilation—outdoors if possible. Solvent-based contact cement is flammable; be extremely careful.

Contact cement is applied to both the core material and the back of the laminate. You can use a bristle brush for this. Or you can use a mohair paint roller cover on a roller frame. Or, you can use a notched adhesive spreader for the job. A bristle brush is recommended; it is easier to handle.



First, pre-fit the laminate to the countertop core. It must fit perfectly. If not, recut and trim it at this point, using the details above as an example. Once laminated, it can't be removed.

Spread the laminate over the core surface and the laminate surface. The core surface

probably will take two or three coats of adhesive since the core is porous and will absorb the adhesive.

Let the adhesive dry to the touch. This will take at least 30 minutes—probably 1 hour, depending on the humidity.

Once dry, and we mean **DRY**, cover the countertop surface with kraft paper. This prevents the laminate from sticking to the core until the laminate is properly aligned with the core. You can use strips of lattice molding instead of kraft paper if you want. Either way, the laminate must **NOT** be allowed to touch the core material until perfect alignment has been made.

With a helper and the laminate perfectly aligned with the core, carefully slip out the kraft paper or molding so the laminate and core touch. Easy does it. Inch your way along the length of the top. The contact cement will weld the parts instantly. Once together, the pieces can not be slipped or moved if certain types of cement are used. Check the labels.

When all paper or molding has been removed, gently tap the top of the laminate using a buffer block to distribute the hammer blows and protect the laminate from any damage. Or, you can use a rubber roller to "embed" the laminate to the adhesive.

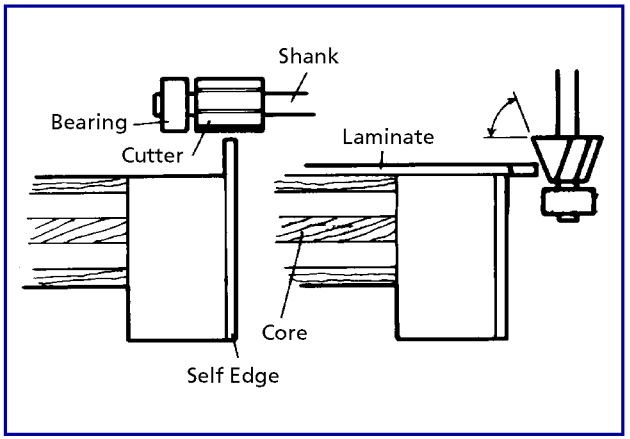
EDGING AND FINAL TRIM

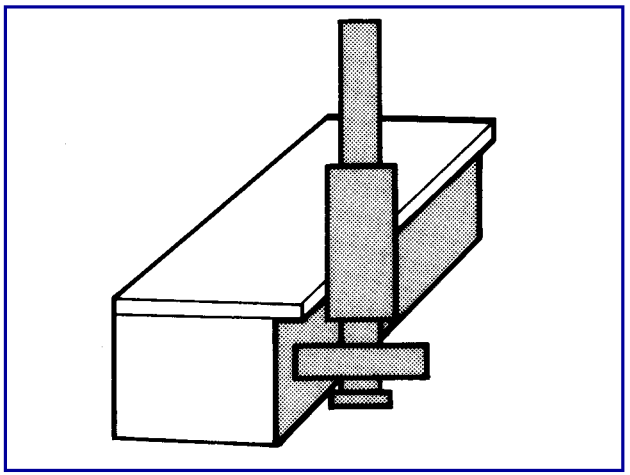
Bevel all top plastic laminate edges and corners to about 30-degrees using the proper bevel trim bit in the router. If you are not using a router, you can make the bevel cuts with a file made for plastic laminate. Or you can use a regular file with either a mill or bastard cut.

All inside corners should be left with a slight radius. This applies to cut-outs made for sinks or burners, and also inside corners on L-shaped tops. This helps prevent cracks due to the expansion and contraction of the laminate and the core.

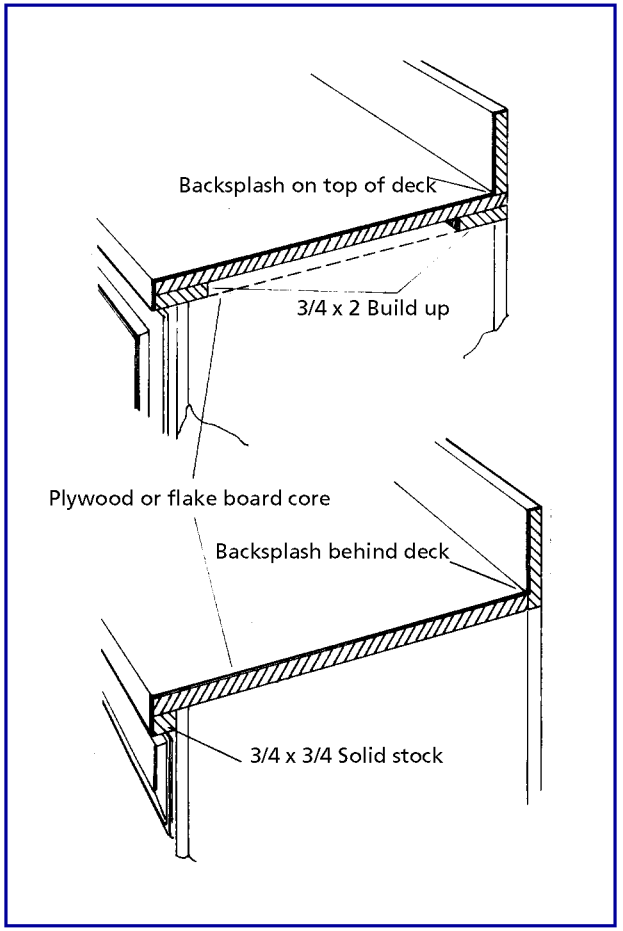
Plastic laminate is glued onto the backsplash core exactly the same way as for the countertop core. Build the backsplash separately from the top. Make it with the same material as the core and to the measurements you prefer. Or, you may not want a back splash. If not, run caulking between the back edge of the countertop and the wall to seal this joint.

Another trick is to finish the back edge of the top before installing it with a ready-made metal cove molding. Spread silicone sealant on the back of the molding and then install the entire countertop.





With the countertop on sawhorses, put the backsplash into position (if you're using one) and fasten it to the back edge of the countertop with either screws or screw-type nails. Predrill pilot holes for the fasteners before driving them. Complete the job by fastening the backsplash to the wall with construction adhesive. Then caulk the joint between the countertop and backsplash with silicone caulking. If the backsplash is fairly narrow, you may want to seal the crack between the backsplash and wall with silicone caulking compound.



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