

KERFKORE ULTRALITE

A patented bendable substrate
material that can be laminated flat
and then cold formed into
virtually any shape

TECHNICAL INFORMATION

MANUFACTURED BY

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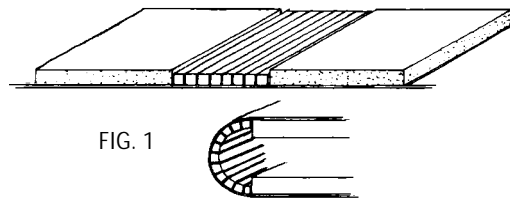


KERFKORE & ULTRALITE KERFKORE FABRICATING TECHNIQUES

LAMINATING FLAT

ALLOWING FOR THICKNESS DIFFERENCES

Decorative surfaces are laminated flat to Kerfkore and the adjoining areas PRIOR TO ATTACHMENT to the remaining portion of the structure. It is NOT necessary to use the same thickness Kerfkore as the rest of the structure. All differences in thickness show up on the inside of most structures not the outside. (Fig. 1)

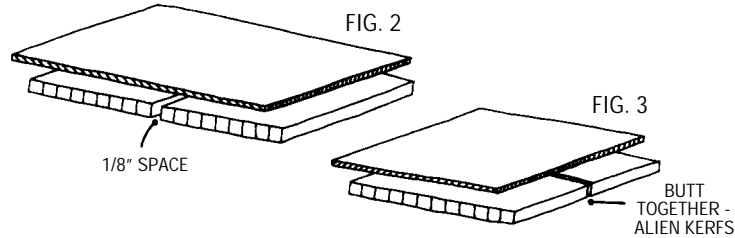


SPLICING KERFKORE WITHOUT FASTENERS

DON'T THROW ANY OF YOUR KERFKORE SCRAPS AWAY - YOU CAN ALWAYS PIECE THEM TOGETHER.

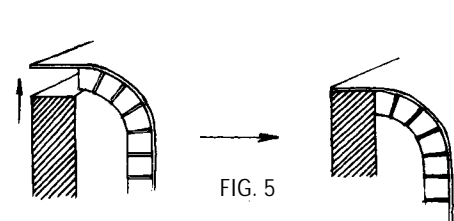
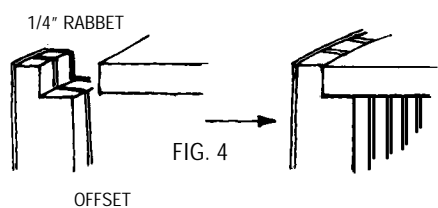
For additional WIDTH, place the Kerfkore panels side by side leaving 1/8" gap between them. It's easiest to use a piece of scrap 1/8" hardboard as a temporary spacer to butt up against to be certain panels are evenly spaced and parallel. (Fig. 2)

For additional HEIGHT, butt pieces together end-to-end. Make certain grooves are aligned. NO NEED to glue. (Fig. 3)



ALLOWING FOR OFFSETS

Because Kerfkore, with the decorative facing material after laminated is attached using rabbet or butt joints, allowance must be made for the offset. (Fig. 4 and 5)



TRANSITIONS

NOTE: Always allow 3 ribs of Kerfkore (unopened if using standard two-sided Kerfkore) when joining to a flat section. This will allow for a smoother transition into the radiused area. (Fig. 6) For an outside radius, first rib must be glued to the adjoining straight section with carpenter's glue prior to bending.



THE DO'S AND DON'T'S OF KERFKORE AND ULTRALITE

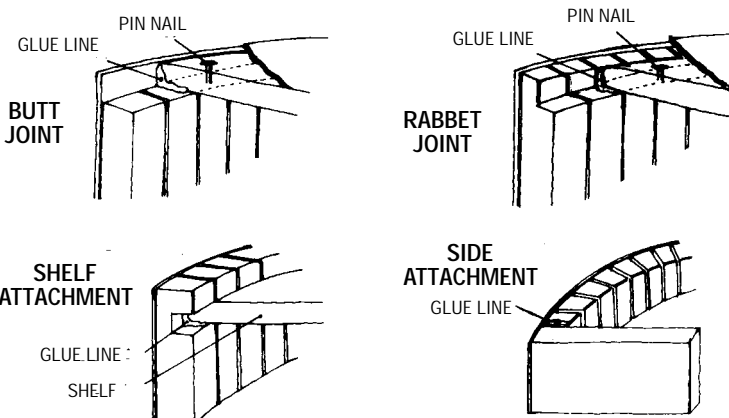
DO:

- Always laminate flat to black side before forming and attaching to framework.
- Use a vertical grade high-pressure laminate face. A horizontal grade HPL can be used provided it will bend to the desired radius.
- Use a phenolic back veneer or two ply veneer (back veneer of two ply at 90°) as face material.
- Use a test strip to determine the correct amount of adhesive and laminating pressure necessary to achieve a smooth radius.

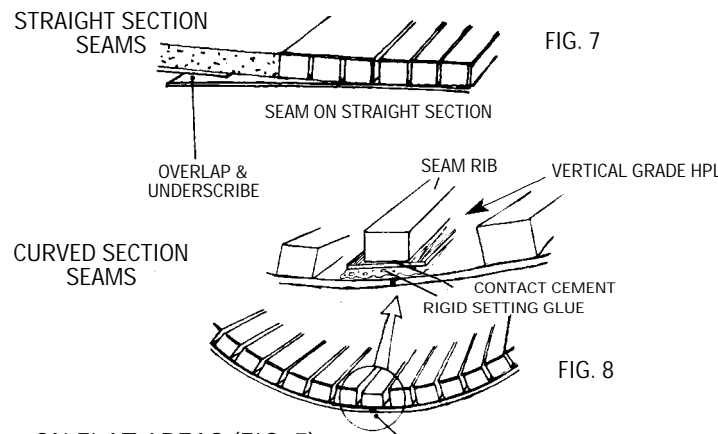
DON'T:

- Do not use a paperback veneer or single ply veneer as face.
- Do not attach Kerfkore to framework and then laminate face.
- Never bend Kerfkore or try to bend beyond the natural stopping point when making an outside radius.
- Do not use rigid setting glues such as epoxy or urea when attaching face to black paper. Use of contact is preferred.
- Avoid allowing face material to end on a radius (especially horizontal grade laminates and similarly rigid materials).
- Do not use flammable adhesives on Ultralite as they may dissolve foam core material.

ATTACHMENT METHODS



SEAMING METHODS



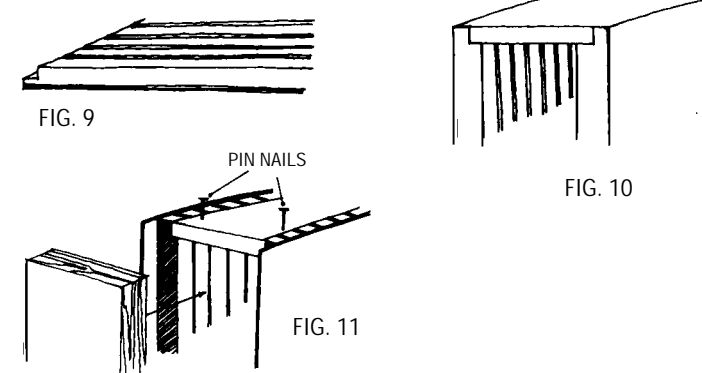
ON FLAT AREAS (FIG. 7)

- Allow at least three ribs of Kerfkore prior to beginning of curved area.
- Allow laminate to extend 2" to 3" beyond Kerfkore.
- Butt or overlap and underscribe laminate seam.

ON CURVED AREAS (FIG. 8)

- Allow approximately 5/8" of facing material to extend beyond both pieces of Kerfkore.
- Trim laminate to 1/2" with router to obtain a good seam edge.
- Butt laminate together and clamp in place.
- Adhere a strip of vertical grade HPL over seam using a rigid setting adhesive such as epoxy.
- Cut seam rib 3/4" wide from solid wood or particle board.
- Apply contact cement to seam rib and adhere to back of vertical HPL strip as applied in step 4 above.

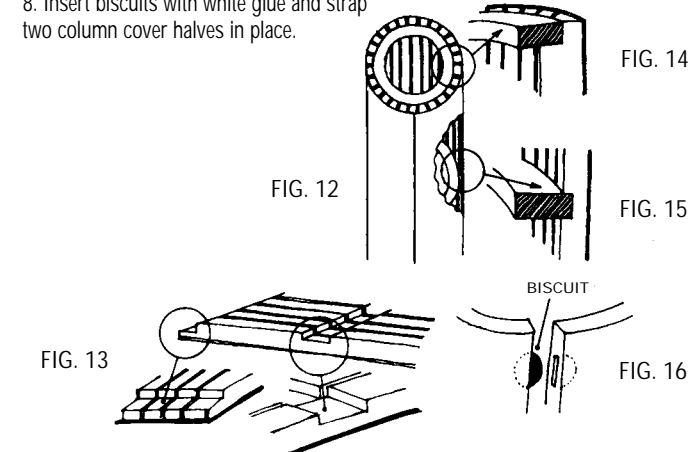
OPEN CHASE CONSTRUCTION



COLUMNS

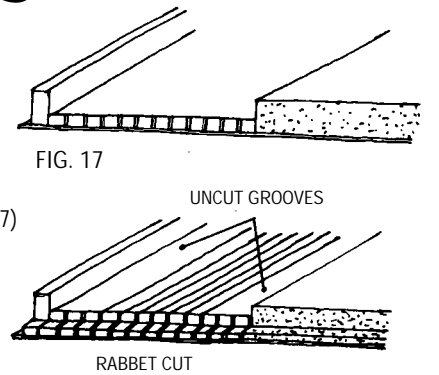
For any decorative surfacing material on any radius within the bending capabilities of 1/2" and 3/4" Kerfkore.

- Cut top and bottom rails and internal supports as may be needed.
- Cut pieces of Kerfkore to size of outside circumference. Cut in half so you have two pieces equal to the outside circumference.
- Laminate surface material to both pieces of Kerfkore so that it overhangs all sides. Trim laminate.
- Use a rigid setting adhesive to adhere a vertical rib on each laminate overhang.
- Cut rabbet cut into top and bottom of both laminated panels. Also, cut any dado for horizontal support required. (See Fig. 13)
- Cut biscuit slots into side ribs and align with opposite half. (Fig. 16)
- Attach laminated Kerfkore panels to top and bottom rails using white glue and occasional pin nails or hot melt glue to temporarily hold in place. (Fig. 14)
- Insert biscuits with white glue and strap two column cover halves in place.

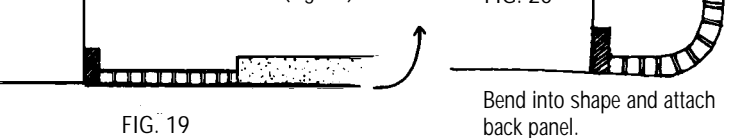


J-PANELS (RADIUSED SIDE PANELS)

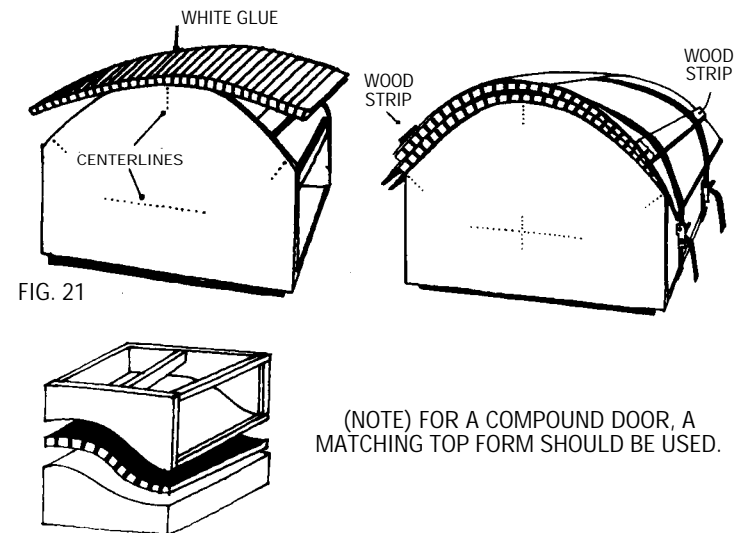
Laminate precut parts to HPL with contact cement. (Fig. 17)



Attach vertical end piece to side of cabinet structure. (Fig. 19)



DOORS



- Using contact cement, adhere inside laminate to black side of Kerfkore.
- If using two sided Kerfkore, open Kerfs.
- Position Kerfkore/laminate assembly on form, making sure Kerfs are parallel to centerline, (Fig. 21) mark door edges, shifting as needed to make sure hinge attachment holes fall as close to the center of a rib as possible.
- Carefully trim Kerfkore/laminate to correct width and length, allowing for edge trim.
- Cut piece of laminate 1" larger in length and width than finished door measurement.
- Spread a moderate coat of white glue on the rib side of Kerfkore and on the back of the facing material. Position facing material so that it overhangs all edges.
- Use a piece of Kerfkore with a piece of scrap laminate adhered to it and place it over the face laminate being applied to the door. Strap in place with 1-1/2" x 1/2" wood strips positioned under straps. The wood strips will help distribute the laminating pressure evenly to assure proper adhesion and a smooth surface. Allow glue to cure.

PRODUCT DESCRIPTIONS

Single-sided Kerfkore is a flexible product that can be formed into curves and radii as required. **Single-sided Kerfkore** consist of a core of kerfed particleboard with a very flexible latex impregnated face paper.

Two-sided Kerfkore is a semi-rigid product that can easily be made flexible by the removal of the backing paper between the kerfed areas. **Two-sided Kerfkore** consists of a kerfed core of particleboard with a very flexible latex impregnated face paper and a phenolic impregnated backer sheet.

Ultralite Kerfkore is a flexible lightweight product that can be formed into curves and radii as required. This is an excellent substrate that can be used where hanging, transporting, and other weight considerations are important. **Ultralite Kerfkore** consists of a high density foam core with a latex impregnated face paper.

PRODUCT CHARACTERISTICS

Two-sided, Single-sided and Ultralite Kerfkore is designed to be laminated flat with a HPL or phenolic-backed veneer on to the black face and then formed by the use of ribs or other supports. This method produces a smooth finished surface without any telegraphing.

Two-sided Kerfkore is rigid until the paper between the kerfs on the back is removed. This allows for the panel to be curved in only the area needed while keeping the other areas straight.

Optional core materials for **Two-sided** and **Single-sided Kerfkore** include plywood, fiberboard, and fire-rated particleboard.

After lamination, **Ultralite Kerfkore** can be made rigid by laminating another piece of laminate to the open side while the part is formed to shape. With the appropriate contact or PVA adhesive, the rigid part can be edge banded. Flexible T-molding can also be used.

BENDING CAPABILITIES

The bending radius obtainable using **Single-sided** and **Two-sided Kerfkore** is directly related to the material that is applied to **Kerfkore**. Normally a vertical grade laminate or a phenolic-backed veneer will allow an outside radius of 3 1/2" to be obtained on 3/4" **Kerfkore**. A smaller radius is possible when using 1/4" and 1/2" **Kerfkore**. It is best to pre-test any materials before proceeding.

The bending radius obtainable using **Ultralite Kerfkore** is directly related to the material that is applied to **Ultralite Kerfkore**. Normally a vertical grade laminate or a phenolic-backed veneer will allow an outside radius of 3 1/2" to be obtained on 3/4" **Ultralite Kerfkore**. A smaller radius is possible when using 1/2" **Ultralite Kerfkore**. It is best to pre-test any materials before proceeding.

KERFKORE CLASSIFICATION AND DIMENSIONS

Item #	Core Material	Panel Size	Nominal Thickness	Actual Thickness	Wt./SF
SK25PB	Particleboard	48"x97"	1/4"	0.270	1.3lbs.
SK50LP	Luan Plywood	48"x97"	1/2"	0.520	1.6lbs.
SK50PB	Particleboard	48"x97"	1/2"	0.520	2.0lbs.
SK75LP	Luan Plywood	48"x97"	3/4"	0.770	2.1lbs.
SK75PB	Particleboard	48"x97"	3/4"	0.770	3.0lbs.
KK25PB	Particleboard	48"x97"	1/4"	0.290	1.3lbs.
KK50LP	Luan Plywood	48"x97"	1/2"	0.540	1.6lbs.
KK50PB	Particleboard	48"x97"	1/2"	0.540	2.0lbs.
KK75LP	Luan Plywood	48"x97"	3/4"	0.790	2.1lbs.
KK75PB	Particleboard	48"x97"	3/4"	0.790	3.0lbs.

ULTRALITE CLASSIFICATION AND DIMENSIONS

Item #	Core Material	Panel Size	Nominal Thickness	Actual Thickness	Wt./SF
SK50UL	Class A Foam	48"x96"	1/2"	0.520	2 oz.
SK75UL	Class A Foam	48"x96"	3/4"	0.770	3 oz.

ADHESIVES

The black latex face paper will accept any contact cement recommended for use with decorative laminates. Use of a PVA glue is also acceptable provided they will result in a somewhat flexible glue line. It is recommended to do a test on a small sample to determine compatibility.

Some solvent-based adhesives can attack the foam core of **Ultralite Kerfkore**. Care should be taken to only coat the necessary area. A test piece should be used to ensure the selected adhesive will be compatible with the foam core.

LAMINATING PRESSURE

Kerfkore - When using contact adhesive, light to moderate pressure is adequate. Firm hand pressure or moderate pressure with a J-roller works well. The use of a pinch roller is not recommended. When using a PVA glue, 35-50 PSI is adequate. Too much pressure will affect the flexibility of the black paper and could cause the product to telegraph.

Ultralite Kerfkore - Contact adhesive will require only light to moderate pressure. When using a PVA glue minimum pressure of 5-10 PSI is adequate as too much pressure will crush the foam core material.

Note: Due to broad variations in both adhesives and laminates, it is always recommended that a test strip be made to determine the amount of pressure and adhesive coat necessary to achieve the desired results.

TEMPERATURE CONDITIONING

Kerfkore and **Ultralite Kerfkore** should be acclimated the same as the decorative facing material to be applied to it. If available, use the guidelines recommended by the face material manufacturer.

HANDLING

Single-sided Kerfkore and **Ultralite Kerfkore** panels can be rolled into a coil for ease of handling. Keep the black face side out when rolling and be careful to keep fingers from getting pinched. **Two-Sided Kerfkore** panels may bend towards the black face side. This will not affect the use of the **Kerfkore**. The small surface puckers that occur are over the kerfed area between the ribs and will not telegraph through when laminating.

STORAGE

All products should be stored flat with the face material side facing up. Keep in a dry area and away from direct contact with the floor to allow for air circulation.

RATINGS AND TEST DATA

Flame Spread Testing Results: Standard **Kerfkore** KK50PB with 48lb. density 1/2" thick particleboard core has been tested in accordance with ASTM-E84 tunnel test with a general purpose laminate adhered to the surface with a solvent based contact cement - The results of this test were Class B.

Ultralite has a Class A fire rated core. **Kerfkore** is also available with a Class 1 fire rated core.

Kerfkore and **Ultralite** are not recommended for wet applications.

Kerfkore has approximately the same impact resistance as similar core materials that have not been kerfed. **Ultralite** takes on the characteristics of the facing material applied.

For more information, question, or assistance, please contact us:

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