

Product & Technical Information



LUXCELL®

The 2-in-one backer and facer made for painting or printing

PRODUCT OVERVIEW

LUXCELL®, **SYN-PLY®** and **GATOR-PLY®** comprise three unique product lines of specialty engineered, man-made wood-fiber veneers manufactured by 3A Composites USA. SYN-PLY, the synthetic crossband material, is used specifically in five-ply composite construction and is described in its own Product and Technical Information bulletin. GATOR-PLY, the original specialty engineered wood-fiber veneer backer, is described in its own Product and Technical Information bulletin.

LUXCELL facers and backers are specialty engineered man-made wood-fiber veneers designed for printing or painting by the furniture manufacturer. They are impregnated with a proprietary resin system and possess certain characteristics that allow for successful use as a balancing medium in both three-ply and five-ply panel constructions. LUXCELL can be used as both a facer and/or backing material. Although many panel producers attest to LUXCELL's effectiveness, it must be recognized that as an impregnated product it possesses its own special characteristics, which are not the same as those of wood veneer or high-pressure laminate. LUXCELL is not to be used as a substitute for crossband material.

LUXCELL provides the following unsurpassed benefits:

- Better yields than wood veneers
- Omni-directional product that lays up in any direction
- Uniform color in Rose Brown, White or Tan
- Consistent availability and short lead times
- Custom size sheets cut to your specifications
- Minimizes inventory, labor and waste

Testing has revealed no undesirable features with LUXCELL; however, caution should be observed when using particleboard and medium-density fiberboard cores of less than 5/8" thickness.

ADDITIONAL PRODUCT INFORMATION

- Product dimensional changes are less than 1% of gross dimension in both directions
- Density of products is 40 lbs per msf +/- 10%
- LUXCELL may be requested with a grain orientation. Grain orientation is usually the long dimension of the sheet and is always denoted by the second dimension in the sheet size. Example: 48" x 96" = 96" is the grain direction.
- LUXCELL has a Class A Flame Spread rating
- LUXCELL products are FSC®-Certified (FSC-C074317)

PRODUCT AVAILABILITY

SKU #	Gauge	Color	Standard Sizes
LUXCELL 11205	.026" (.66mm)	White	Widths: 31", 37", 49", 61", 98" Lengths: 50", 62", 97", 121", 145" Custom sizes available
LUXCELL 10308	.026" (.66mm)	Tan	
LUXCELL 11306	.020" (.50mm)	Rose Brown	
LUXCELL 11202	.020" (.50mm)	White	



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STORAGE

Ideally, LUXCELL should be stored in the same area as the cores and facers 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. LUXCELL products have an unlimited shelf life, but like all veneer type products, control of the above mentioned conditions is critical.

USAGE INSTRUCTIONS

LUXCELL facers/backers are convenient to use because they accommodate all normal lay-up, trimming and shaping operations commonly practiced in the furniture/cabinet industry. LUXCELL facers can be painted or printed by the furniture manufacturer in order to match design & color specifications. Printing or painting can produce a specific furniture color or pattern as desired by the manufacturer.

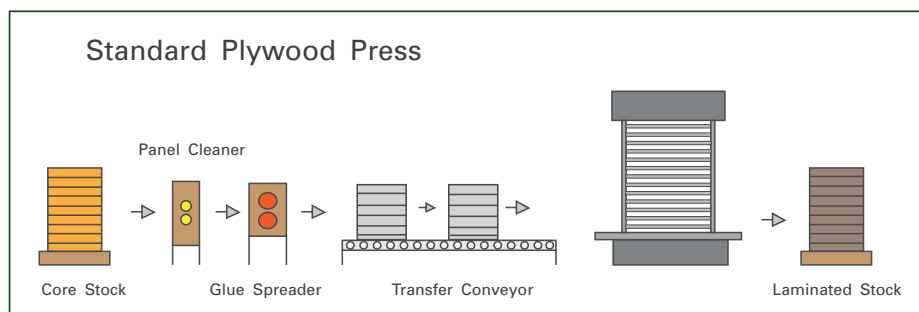
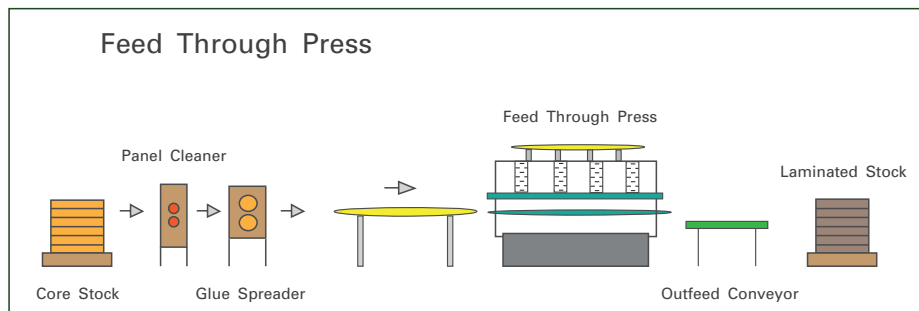
LUXCELL is not to be used as a substitute for crossband material in five-ply applications. LUXCELL works with particleboard or medium-density fiberboard (MDF). Core material that is thicker than 5/8" works best.

LAMINATION - HOT PRESS

LUXCELL may be used with normal adhesives such as Urea Formaldehyde and PVA. The quality of each has proven very important. LUXCELL can be used in cold or hot press applications, but hot press typically provides the best results for finishing. For the best lamination results, adhesive should be laid down uniformly on each side of the core material. We recommend the following parameters for maximum results:

HOT PRESS PARAMETERS

Solids:	U.F. 60-65% / PVA 45-55%
Glue Spread:	22 - 35 lbs/MSF/side
Lay-Up or Assembly Time:	5 - 45 minutes (adhesive dependent)
Stacking:	Face-to-face stacking is preferred but not always necessary
Press Temperature:	U.F. - 270° F short cycle; 240° F long cycle / PVA - 240° F short cycle; 220° F long cycle
Press Pressure:	100 - 125 psi.
Press Time:	1-1/2 minutes short cycle; 3 - 5 minutes long cycle
Cure Time:	24 hour minimum before finishing



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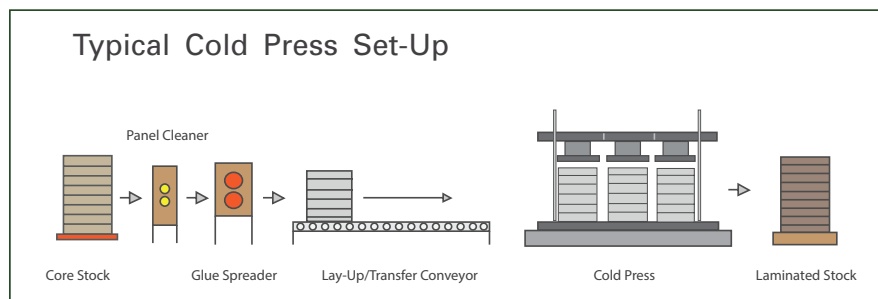
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LAMINATION - COLD PRESS

LUXCELL may be used with normal adhesives such as Urea Formaldehyde and PVA. The quality of each has proven very important. LUXCELL can be used in cold or hot press applications. For the best lamination results, adhesive should be laid down uniformly on each side of the core material. We recommend the following parameters for maximum results:

COLD PRESS PARAMETERS

Solids:	45% minimum
Glue Spread:	22 - 30 lbs/MSF/side
Lay-Up or Assembly Time:	5 - 20 minutes (adhesive dependent)
Stacking:	Face-to-face stacking is preferred but not always necessary
Press Pressure:	25 - 150 psi. depending on components
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.

SANDING

Panel Conditions

- Aging - Panel should be aged as long as possible between lamination and sanding. 24 hours minimum is recommended, preferably longer since the resin in LUXCELL continues to cure after being laminated. This also allows time for moisture in the panel to dissipate.
- Flatness - For maximum flatness, panels should be face stacked immediately out of hot press and allowed to remain dead stacked for at least 24 hours. Flat panels require minimal sanding which is desirable with automatic sanding equipment and for quality finishing of LUXCELL.

Sanding Belts

- Grit Sizes - Suggested recommendations for general purpose sanding:
 - 4/0 (150 mesh) for cutting
 - 5/0 (180 mesh) for polishing
 - Finer grits may be used on specialty items where smoother or tighter surfaces are desired.

FINISHING

Engraved Surfaces

- Apply base coat and one sealer coat prior to glaze or wiping stain. If base coat is omitted, it's recommended that a sealer coat is applied.

Painted Surfaces

- Standard finishing procedures are usually adequate. It's recommended that your paint/finishing supplier is contacted for best results.

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TRIMMING AND SHAPING

LUXCELL is engineered to provide cleanly shaped edges on adequately cured cold- or hot-pressed panels; if trimmed edges should result in fuzz, the condition may be caused by:

- Inadequate glue-line cure time. Excess moisture from non-dried glue accumulated near the panel edges may temporarily soften the edges of LUXCELL preventing a clean blade cut.
- Dull trimming or shaping tools. Where saws or tool heads are excessively worn down, nothing can prevent chipping or fuzz on surface materials.
- “Oscillating” tools or “out of true” saws also contribute to uneven edges regardless of tool sharpness.

BACKING PROPERTIES AND PANEL STABILITY

Industry experience indicates that two of the most important properties needed in a backing sheet are:

1. Mechanical tensile strength to help stabilize core stock in a multi-ply panel
2. Impedance of rapid moisture-level transmission to enable all panel components to reach equilibrium slowly, thus minimizing warping and cupping in the field.

For more details about our full line of LUXCELL facers and backers, call 800-626-3365 (select “1” for customer service) to request printed product literature; or visit our website at www.gatorply.com to view and/or download all available literature.

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LIMITED WARRANTY

Disclaimer of implied warranties and limitation of remedies: Except where seller has provided a written limited warranty for its product(s) seller warrants only that at the time of shipment the goods sold hereunder will be as described in the order. Seller makes no other warranties of any kind, express or implied, including without limitation, any implied warranty of merchantability or fitness for a particular purpose. Seller shall have no liability of any incidental or consequential damages. The sole and exclusive remedy provided by seller on account of any warranties or claims of any kind shall be limited to the replacement of the goods in question or at the seller's option, a credit to buyer of the purchase price paid. No person is authorized to make any representation of warranty on behalf of seller except as expressly set forth above and any such statement shall not be binding on seller.