



Product & Technical Information

LUXCELL®

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LUXCELL® - The Backer for Painting or Printing *The specialty engineered man-made wood-fiber veneer.*

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 Information and Technical Bulletin. Gator-Ply, the original specialty engineered man-made wood-fiber veneer, is described in its own Product Information and Technical 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 them to be used successfully as a balancing medium in both three-ply and five-ply panel constructions. Luxcell can be used as both a facer and/or a backing material. Although many panel producers attest to Luxcell's usefulness, it must be recognized that it is an impregnated product with its own special characteristics, which are not the same as those of wood veneer or high-pressure laminate (HPL). Luxcell is not to be used as a substitute for Syn-Ply, the synthetic crossband material.

Luxcell provides the following unsurpassed performances:

- Better yields than wood veneers
- Omni-directional product that lays up any way you wish
- Uniform color in Rose Brown, White or Tan
- Consistent availability
- Timely delivery
- Custom sizing, stock sheets, or cut to your specification
- Minimizes inventory, labor and waste
- Stable pricing

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.

Product Listing

Product	Sheet Color	Thickness inches	Weight Lbs per MSF
112-05	White	.026 +/- .002	97 +/- 8
103-08	Tan	.026 +/- .002	94 +/- 8

Additional Product Information:

- Luxcell has a Class A Flame Spread rating.
- Product dimensional changes are < 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.

Use 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. Printing or painting can produce a specific furniture color or pattern as desired by the manufacturer.

Luxcell backers are **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.

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.

Lamination

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-press or hot-press applications, but hot press typically provides the best result for finishing. We recommend the following for maximum results.

Processing Information at a Glance

Cold Press

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 although 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

Hot Press

Solids:	U.F. 60-65% PVA 45-55%
Glue Spread:	22 - 35 lbs./MSF/side (hot press)
Lay-up or Assembly Time:	5 - 45 minutes (adhesive dependent)
Stacking:	Face-to-face stacking is preferred although not always necessary
Press Temperature (hot press):	U.F. 270 degrees F short cycle, 240 degrees F long cycle PVA 240 degrees F short cycle, 220 degrees F long cycle
Press Pressure:	100 - 125 psi.
Press time:	1 ½ min. short cycle (hot press) 3 - 5 minutes long cycle (hot press)
Cure time:	24-hour minimum before finishing

*The above recommendations were developed based on proven applications. There may be some cases where the recommendations do not apply.

Trimming and Shaping

Luxcell facers/backers are 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:

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

For details about our full line of Luxcell facers/backers, call (877) 424-9860 to request printed product literature; or, visit our web site at www.luxcell.com to view and/or download all available literature.

Additional product/technical support documents are available from this service, including:

- **Syn-Ply® Product Information and Technical Bulletin** – including a complete listing of all Syn-Ply materials, the synthetic crossband for five-ply construction.
- **Gator-Ply® Product Information and Technical Bulletin** – including a complete listing of all Gator-Ply materials, the low-formaldehyde specialty engineered man-made wood-fiber veneer.

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LIMITED WARRANTY

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