



Product & Technical Information

SYN-PLY®

Date: January 7, 2016

Syn-Ply® - The Synthetic Advantage Underneath

The original specialty engineered synthetic crossband man-made wood-fiber veneer.

Syn-Ply®, Gator-Ply® and Luxcell® comprise three unique product lines of specialty engineered man-made wood-fiber veneers manufactured by 3A Composites USA. Gator-Ply, the specialty engineered man-made wood-fiber veneer, is described in its own Product Information and Technical Bulletin. Luxcell, the facer that can be painted or printed, is described in its own Product Information and Technical Bulletin.

Syn-Ply, the synthetic crossband, is a specialty engineered man-made wood-fiber veneer. Syn-Ply synthetic crossband material is impregnated with a proprietary resin system and has certain characteristics that allow it to be used successfully in five-ply panel construction.

Syn-Ply provides the following unsurpassed performances:

- Better yields than wood veneers
- Omni-directional product that lays up any way you wish
- Uniform color in Almond
- 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 Syn-Ply synthetic crossband material; however, caution should be observed when using particleboard and medium-density fiberboard cores of less than 5/8" thickness.

Product Listing

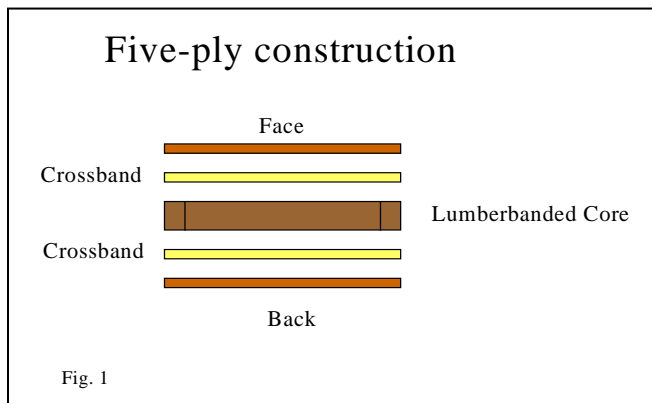
Product	Sheet Color	Thickness – inches
206-06	Almond	.026 +/- .002

Additional Product Information:

- Syn-Ply has a Class A Flame Spread rating.
- Product dimensional changes are < 1% of gross dimension in both directions.
- Density of products is 40lbs per msf +/- 10%.
- Weight per msf is 96lbs +/- 8lbs.

Product Processing

Syn-Ply, the synthetic crossband, can be used with normal manufacturing equipment such as standard plywood and feed-through presses. Syn-Ply can be used with normal adhesives such as Urea Formaldehyde and polyvinyl acetate (PVA). *Consult glue suppliers for optimum viscosity for running Syn-Ply. The product is used in five-ply applications where a lumber-banded core is used but can be used on solid cores that are within acceptable industry standards in construction, moisture and thickness. See Figure 1.



Syn-Ply is typically fed through a conventional glue spreader where glue is applied to both sides of the material. It is critical that the glue rolls are in good condition to ensure that glue spread is applied evenly to both surfaces of Syn-Ply. Syn-Ply is then placed in between the backer and core and the face and core, creating a five-ply construction. Depending on the type of press used, the construction is then placed/fed into the press and pressed for 2-5 minutes at a temperature of 200-270° F. The press time is determined by the curing reaction of the glue used. Our recommendation is not to go below 2 minutes on press time. When using Syn-Ply, press pressure can be reduced to the lowest level possible. This will reduce the possibility of telegraphing of core imperfections. *Caution should be taken to make sure panels are adhered after pressing when pressure is reduced. See Figures 2 and 3.

Syn-Ply should be used within 90 days of receipt. Use-date labels are provided on each skid.

Typical Hot Press Process

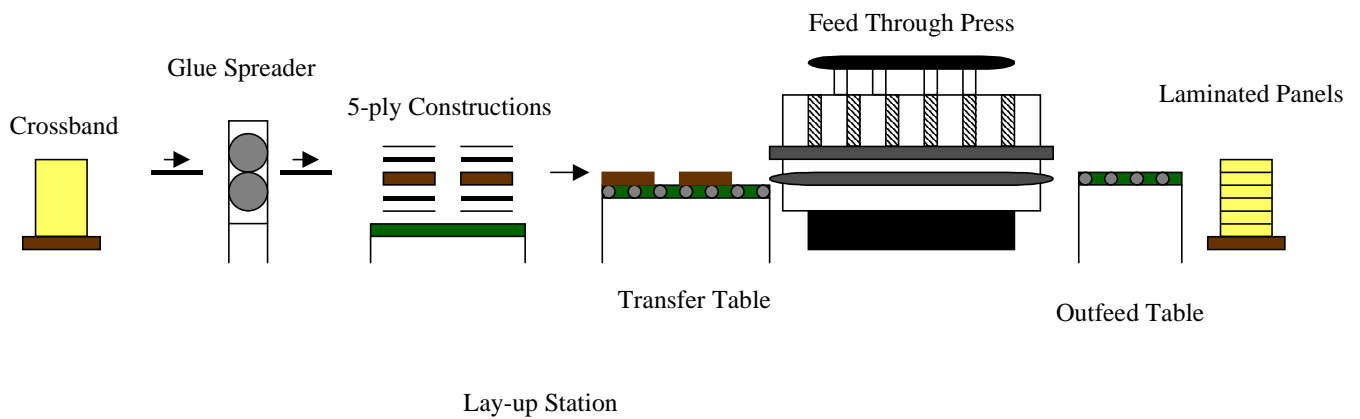


Fig. 2

Typical Hot Press Process

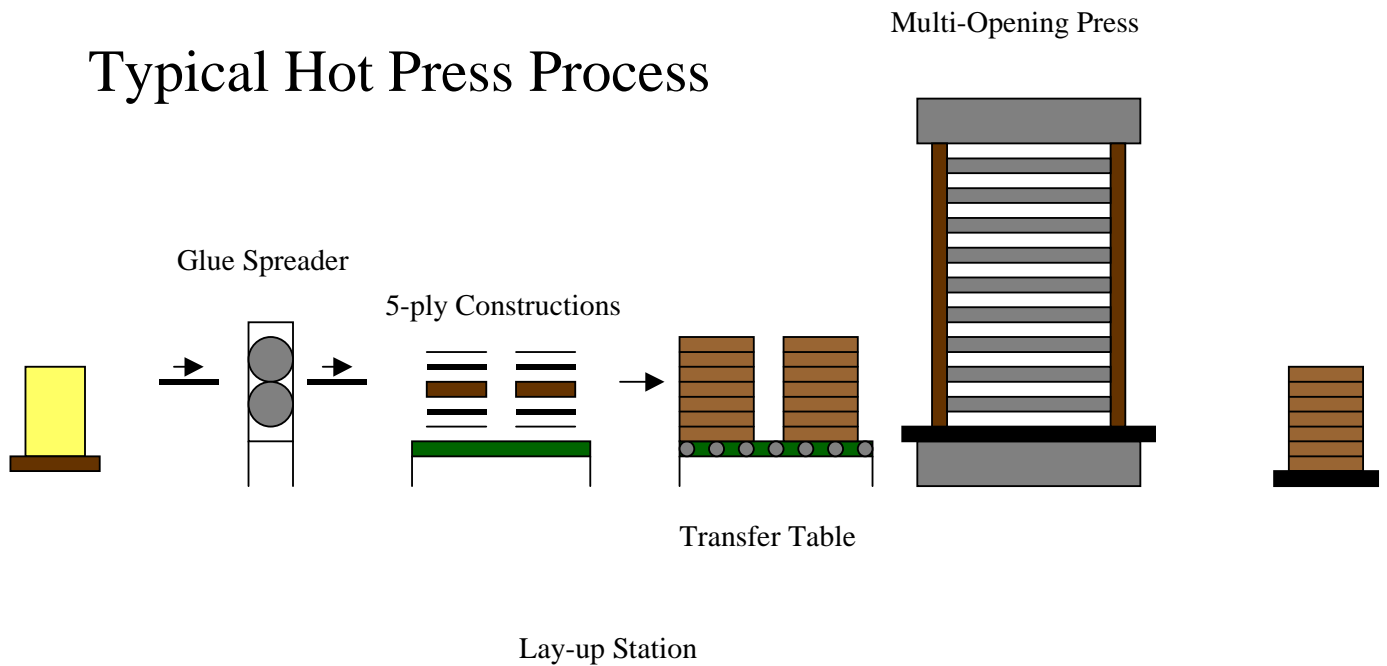


Fig. 3

After the panels are pressed, normal stacking procedures are recommended. It is recommended that after pressing the panels, they are allowed to stabilize for approximately 24 hrs. before further processing. This allows the panel to reach final cure and to equilibrate with the ambient surroundings.

Processing Information at a Glance

Hot Press

Solids:	U.F. 60-65% PVA 45-55%
Glue Spread:	30 - 35 lbs./MSF/side (hot press)
Lay-up or Assembly Time:	Dependent on glue and process utilized. Check with our technical service.
Stacking:	Normal stacking is sufficient
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:	90 - 125 psi.
Press time:	2 - 5 minutes minimum cycle
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.

Storage

Ideally, Syn-Ply 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. For best results, we recommend that Syn-Ply be used within 90 days of receipt. This will ensure Syn-Ply's highest performance level.

For details about our full line of Syn-Ply synthetic crossband material, call (877) 424-9860 to request printed product literature; or, visit our web site at www.synply.com to view and/or download all available literature.

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

- **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.
- **Luxcell[®] Product Information and Technical Bulletin** – including a complete listing of all Luxcell materials, the facer that can be painted or printed for three-ply construction.

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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.