

## Technical Specifications

**Product Composition:** LIGNAPAL consists of select natural veneers that are laminated to a wood core material, and then laminated to a thin phenolic backing sheet.

The surface is curtain coated with a polyurethane lacquer for a **satin** finish, or a polyester acrylic lacquer for a **high gloss** finish. Because of the insert properties of wood and the number of veneer sheets cut from any given log, variation in color and grain detail; variations will occur from sheet to sheet. This of course is a natural happening and is not considered a defect. A natural maturing and mellowing of color can occur with age, which is part of the desired appearance of natural wood.

**Specification:** Sheet size: 48" x 120" / 48" x 96" (stocked) Other sizes available as a custom order.

**Thickness:** Satin Finish- 0.027" High Gloss- 0.035"

**Veneer Splices:** Stocked species are book-matched except for Birch. Custom orders may be specified by the customer.

**Finishes:** Satin Finish- 60 grams of dry UV cured polyurethane lacquer High Gloss- 220 grams of UV cured polyester acrylic lacquer

**Wear Resistance:** 150 Taber

**Dimensional Stability:** Equivalent to post formable high pressure laminates ( NEMA LD3-1995 )

**Heat Resistance:** No visible change (NEMA LD3-1995)

**Chemical Resistance:** No visible change (DIN 68861 group 1A), household products except for stamping ink

**Dry Heat Resistance:** Cold-Check test VTL 7100-001

## Installation/Fabrication Information

**Application:** The finish used on LIGNAPAL is very durable. It may be used on any interior surface for all vertical applications, and non-working horizontal surfaces. It is not recommended for exterior use.

**Storage and Handling:** Fabricators are cautioned in handling and fabricating LIGNAPAL due to the fiber cell construction of the wood veneer. Like all finished woods, marring and scratching can occur if caution is not used. It should be handled in the same manner as glossy high pressure laminates or fine finished wood furniture.

To help minimize the chance of surface damage all sheets of LIGNAPAL have a protective tack sheet applied to them at the factory. When in storage, all sheets should be placed face to face in a dry area on a flat surface with a piece of hardboard laid on the top. It should never be laid directly on the floor.

**Conditioning & Stabilizing:** LIGNAPAL is not an inert product; it is therefore sensitive to ambient temperatures, humidity, and moisture. As with all wood products, the fabricator must be aware of the fact that wood can and does expand and contract. It is important that the LIGNAPAL and the substrate to which it is to be applied be allowed to acclimate to the atmospheric conditions of where it will be fabricated. The fabricator might want to unpack the panels and allow air to circulate, especially if the installation site does not have any source to control the humidity. Ideal conditions are 75° F and between 40% to 65% relative humidity.

**Substrate Preparation & Sealing:** Suitable substrates are particleboard, MDF, and plywood. The surface to which the LIGNAPAL is to be bonded must be free of grease, dust and moisture. If a contact cement is going to be used it is recommended that the surface of the substrate be sealed using a thinned down coating of contact cement. All edges of LIGNAPAL should be sealed to prevent moisture penetration and subsequent discoloration.

**Adhesives:** The recommended cement to use for LIGNAPAL is any PVA or Urea formaldehyde adhesive. These adhesives produce a very strong bond when used in conjunction with a laminating press. The temperature of the press should not exceed 140° F. Always follow the adhesive manufacturer's recommendations. When using contact cements it is essential that the adhesive be evenly applied on both surfaces with good coverage and without any voids. For best results a minimum 50 to 75 lbs. /sq. inch of pressure should be used. It is important that the entire area of the surface receive adequate pressure. It is advised that the fabricator always work from the center outward to exclude the air bubbles and ensure that the entire surface is contacted.

**Fabrication:** LIGNAPAL can be fabricated using the tools typically used with high-pressure laminates. Please refer to NEMA publication LD 3.1, 1991 for additional fabrication information.

**Balanced Construction:** To avoid warping, both sides of the panel that is being laminated with LIGNAPAL must be balanced. The best result is obtained by using LIGNAPAL on both sides. The most economical approach is to use a normal high-pressure laminate or a phenolic backing sheet of the same thickness as the LIGNAPAL.

**Maintenance & Cleaning:** LIGNAPAL surfaces should be cleaned with a damp cloth using, fine wood furniture cleaners, 1% liquid soap and a water solution or a 50-50 ethyl alcohol and water solution. Ethyl acetate or "3M® Adhesive & Wax Remover" can be used to remove any traces of the peel coat that remain on the surface.

Never use cleaners containing wax, oil, or abrasive agents. Once any of these are used it is impossible to perform most repairs.

Repairs: Light scratches can be repaired by sanding using 500-600 grit sand paper and finish at a right angle with a very fine 1000-1500 grit paper. Buff using Ilva PX50, and fine abrasive wax paste. Polish to a high gloss with Ilva PX51 (polish splendor/brillante). Heavy scratches should be sanded with 320-400 grit sand paper until the scratch is gone. After that, spray one coat of Ilva TP20 clear polyurethane on it. This finish may be buffed if desired, but two coats may be necessary to avoid rubbing through.