TECHNICAL SPECIFICATION SHEET

Product Description

Custom High Pressure Laminate (CHPL) consisting of digital graphic surface papers encapsulated with melamine resins are pressed over kraft paper core sheets impregnated with phenolic resin. These sheets are bonded under pressures greater than 1200 pounds per square inch and at temperatures approaching 300°F (149°C). Finished sheets are trimmed to sheet size or cut to shape by computer assisted equipment.

iZone CHPL maximum sheet and panel size is 60" x 144". Single images larger than 5 'x 12' can be created by tiling multiple panels with index cut seams. Panel thickness ranges from 0.028" post-forming laminate to 1" solid structural panels. Panels can be cut into virtually any shape such as human and animal shapes, arched tops, ovals circles or freeform shapes. If you can draw it, we can cut it. Design possibilities include cut-outs within the panel, shaped edges and even 3-D layering. Panels can also be made "double-sided", with graphic images on both sides, but one monolithic piece. Grades of 1/2" and up are self-supporting and can be fitted with threaded inserts ... perfect for easily attaching to walls, railings and posts without visible hardware. iZone offers a complete line of pedestals and mounting hardware.

iZone CHPL is entirely made in the U.S.A. (under one roof) in our very own centrally located manufacturing facility.

Recommended Uses

iZone Imaging's CHPL product is suitable for interior and exterior use in museums, exhibits, zoos, parks and wildlife parks, municipal wayfinding, hiking trails markers, parking garage signage, swimming pool areas, wall murals, branded environments, and many more applications.

- **0.040"**
  Is most frequently used for work surfaces and counters, islands, vanities, desks, and tables. Typical vertical uses include surfacing for wall panels, murals, teller cages, and front panels of workstations, such as those in hospitals, airports, and restaurants. Type 0.040 Is produced for both horizontal and vertical interior applications where the surface must be functional, durable, and decorative. The back-side is sanded to facilitate bonding and must be adhered to a suitable substrate. Not recommended for exterior use.
- **0.060"**
  Is most frequently used for reader rails, interpretive graphics, and some murals. These laminates need to be mechanically fixed with screws, frames, etc. These laminates can be used outdoors if properly mounted.
- **0.090"**
  Is most frequently used for double sided flip-books, wayfinding, interpretive graphics, and directional's. The 0.090 is a National Park Standard for the NPS frames. These laminates need to be mechanically fixed with screws, frames, etc. These laminates can be used outdoors if properly mounted. This product can also be made double sided with images on both sides, however the double-sided graphics need to be mechanically fastened to prevent any warping.

- **0.125”**
  Is most frequently used for double sided flip-books, wayfinding, interpretive graphics, murals, and directional’s. These panels need to be mechanically fixed with screws, frames, etc. These panels can be used outdoors if properly mounted.
- **0.250”**
  Is most frequently used for double sided flip-books, wayfinding, interpretive graphics, murals, and directional’s. These panels need to be mechanically fixed to a substrate or along the edges with screws, frames, etc. These panels can be used outdoors if properly mounted.
- **0.500”**
  Has a smooth black back and is self-supporting. Most used in areas where free-standing elements and shaped panels are required. Can be produced double-sided. May be drilled and tapped to accept a 1/4”-20 bolt for mounting, or drilled through for mounting from the front. Mostly used in exterior applications where durability is needed.
- **0.750”**
  Has a smooth black back and is self-supporting. Most used in areas where free-standing elements and shaped panels are required. Can be produced double-sided. May be drilled and tapped to accept a 1/4”-20 bolt for mounting, or drilled through for mounting from the front. Mostly used in exterior applications where durability is needed.

Finish Availability

All finishes are available on both exterior and interior products.

MATTE > This Fine Grain premium finish features, a subtle, narrow grain structure and low glare surface. Recommended for all horizontal and vertical applications.

SATIN > A smooth finish, reproducing a medium sheen surface. Recommended primarily for interior surfaces in either horizontal or vertical applications.

ICE > A very finely stippled texture that minimizes smudges and fingerprints and improves scratch resistance. Recommended for all horizontal and vertical applications.

Sheet and Panel Sizes

Maximum sheet and panel size is 60” x 144”. Single images larger than 5 ’x 12’ can be created by tiling multiple panels with index cut seams.

Technical Data - iZone Imaging graphic laminates sheets and panels

The 0.040” sheet is not structural material and must be bonded to a suitable substrate. When designing, cutout openings should be avoided. When required, design cutout openings with seams running along all sides. Note that custom laminates are somewhat more brittle than standard commercial grade laminates. The 0.040” material is not recommended for exterior use.

Do not subject iZone Imaging interior grade laminates to extremes in humidity, temperatures higher than 275° F (135°C) or intense, direct sunlight for substantial periods of time.

Bond with suitable adhesives and follow the techniques recommended by the adhesive manufacturer.

To avoid stress cracking, do not use square-cut inside corners. All inside corners should have a minimum of 1/8" radius and all edges should be routed smooth. Give special attention to edges and seams. Use permanent adhesives to reinforce contact adhesive corners, along edges and at seams.

Always drill oversized holes for screws or bolts. Screws or bolts should be slightly countersunk into the face side of a laminate-clad substrate. This will allow for expansion and contraction.

Take care to ensure an appropriate acclimation time between the laminate and the substrate prior to fabrication. The face and backing laminates and the substrate should be acclimated in the same environment for at least 48 hours before fabrication.

Recommended materials conditioning temperature is about 75°F (24°C). Laminates should be conditioned at 45% to 55% relative humidity for interior installation.

Carbide-tipped saw blades and router bits should be used for cutting of laminate sheets and panels to avoid chipping. High tool speed and low feed rate are recommended. Cutting blades and bits should be kept sharp and may be required to be changed more often. Use hold-down methods to prevent any vibration.

NEMA

iZone CHPL panels exceed the standards for decorative laminates established by the National Electrical Manufacturers Association NEMA LD3-1991. These standards establish the minimum criteria for resistance to wear, boiling water, high temperature, cigarette burns, fading, dimensional stability, staining, appearance, and formability (bending and postforming grades).

Static Electricity

iZone CHPL panels do not store static electricity and are therefore suitable for use in controlled environments where accumulation and retention of static electricity must be avoided.

Fire Retardant

iZone CHPL interior panels are suitable for application where fire retardant properties are required by building codes. We offer both Class A and Class B rated materials.

Toxicity Test

iZone CHPL is assembled utilizing FSC certified brown kraft paper. It meets LC50 Pittsburgh Protocol Toxicity Test requirements. Equal to and no more toxic than wood or paper.

Dimensional Change

Thickness: 0.040" - 0.075". NEMA LD3. HGS: Machine Direction 0.50% (Max). Cross Direction 0.80% (Max).

NSF Product Listing

NSF/ANSI Standard 35 - Laminated Plastics for Surfacing Food Service Equipment.

Disclaimer

This information is presented to assist you in determining what grades of material may meet the requirements of your project. Purchaser shall determine the suitability of the product for its' intended use, and purchaser assumes all risks and liability whatsoever in connection therewith. All statements, technical advice, and recommendations contained herein are based on tests and information believed to be reliable, but the accuracy there of is not guaranteed, and is made in lieu of all warranties, expresses or implied: seller's and manufacturer's only obligation shall be to replace the quantity of product proven defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product.