Specifying Interlam IDF/MDF Screen Products
Screens by Interlam
Division 6 (6400 Architectural Millwork)

Interlam has a standard lead time of 2 to 4 weeks for the majority of our custom produced Interlam Designed Fiberboard (IDF/MDF) screen products. Specific lead times are determined upon receipt of both the deposit and approved shop drawings. Lead times are based on a "first come first served" basis and are solely dependent upon our current workload. Interlam does not charge nor accept additional charges for rush orders. All orders will be manufactured as fast as possible in the order they are received.

The through-carved IDF/ MDF screen product offers the customer an extremely broad variety of patterns (including the possibility for custom patterns), materials, finishes and installation options. In order to translate a customer requirement into an accurate product specification, it is important to understand all of the product options and terms used to describe these options. Product specification terms and options are discussed below along with helpful illustrations.

It is important to first select a core material based on specific project needs, such as contribution towards "Leed" credits, FSC Certified fibers with COC, Class A fire rating, formaldehyde emissions or moisture resistance. Not all core materials are available in all sizes, finishes and or patterns. **Consult the specific pattern page to determine available thickness and sheet size for each individual core.** Custom sizes can be considered, but please consult with the factory (336.786.6254) with your questions. Lead times may be increased if a non-standard sheet size or thickness is required for any given job.

1. **Core material options:**

IDF: ***"Interlam® Designed Fiberboard"*** Our advanced refining process and high quality wood fibers offer excellent surface qualities for deep profiling of carved MDF panels and components. This core option is our standard and is proprietary to the Interlam brand. We have spent years collaborating with the mills to provide a core option that presents the most consistent density profile from core center to face allowing a uniform aesthetic appearance of the surface of the finished carving. This core provides the highest quality finish of any of our available core options.

NAF: No Added Formaldehyde: This core option is available as a special option and also includes products that are ULEF (Ultra low emitting formaldehyde) and NAUF , No added urea-formaldehyde. California Air Resources Board (CARB) exempt (NAF,ULEF) products have no added formaldehyde (NAF) and or/ultra-low emitting formaldehyde (ULEF) and have been exempted from third party certification requirements of CARB ATCM 93120. NAUF products, as defined by the U.S. Green Building Council's LEED Standard, may be used for low-emitting materials credit under LEED 2009 for Commercial Interiors and LEED 2009 for new construction and Major renovations for projects registered by October 31, 2016. Projects registered to LEED v4(as of November 20, 2013) will offer credit to IEQ 4.4: Low-emitting Materials for NAF and ULEF CARB compliant panels. LEED v4 does not recognize NAUF. This core provides a finish that is more textured and open celled as compared to the IDF listed above. Please ensure that you request finish samples of the specified core prior to specifying and ordering.

NOTE: Interlam cannot produce screens in Fire-rated core, but Interlam can apply a FireFree Coating to any of the screens that are offered with a factory finish. This adds a Class A fire rating to the entire screen. Adding a FireFree coating requires the screen/panel be AT LEAST primed by Interlam.

Flame Spread Performance of MDF / IDF Wood Screen Panels: Unless otherwise stated, Interlam's IDF or Carved MDF wood panels are not certified for a specific flame spread rating. Untreated [2] MDF has been tested for flame spread by a number of different manufacturers and the results met the Class III or C rating. The Department of Housing and Urban Development(HUD) in their Manufactured Home Construction and Safety Standards(Section 3280.203) accepts MDF 3/8 inch and thicker as having a flame spread rating of 76 to 200 for general use. The American Wood Council (AWC) of the American Forest and Paper Association (AF&PA) has published information in their "Design for Code Acceptance" series (DCA1) relating to Flame Spread Performance of Wood Products. The document can be found at www.awc.org. Table 1 in that document places MDF in the Class III or C rating. Likewise, Table 2 in that document places factory finished products (i.e. printed or with overlays) containing untreated particleboard and MDF substrates in the Class III or C flame

spread rating. Smoke data specific to every product is currently not available; however other manufacturers have found typical values of 100-200 for smoke developed. The AF&PA document states that "a smoke-developed index was measured for some of the wood products listed in Tables 1 and 2". None of the products tested exceeded 450, a limiting value commonly used in building code regulations. Interlam's MDF treated with fire-retardant [3] (FR) additives are certified by Underwriters Laboratories to have a Class A or Class I flame spread rating and must be specifically ordered as an available option with an up charge.

[2] Without a fire---retardant additive

[3] Trade names: Premier® FR, VESTA FR MDF

Forescolor: Through-colored engineered wood dyed at the fiber level using organic dyes and then pressed into boards. Available in 9 colors and 2 thicknesses, Forescolor is an innovative product that combines the natural features of wood with the brightness of colors. Forescolor panel products are manufactured from recycled/recovered forest products; therefore due to the color of the raw material, the raw unfinished panel products will have variations in color and fiber. **Note**: Forescolor is not an available core for: Wavy, Wavy II, or Flow screens.

FSC®: FSC certification provides a credible link between responsible production and consumption of forest products, enabling consumers and businesses to make purchasing decisions that benefit people and the environment as well as providing ongoing business value. Interlam's FSC certificate is available for download direct from our website.

Color Consistency of IDF, MDF, SDF, FR & Forescolor Products:

Our Carved IDF/MDF panel products are manufactured from recycled/recovered forest products; therefore due to the color of the raw material, the raw unfinished panel products will have variations in color and fiber. This condition is relevant when the designer wishes to clear coat or install raw product. The end result will be a natural variation of color and fiber found naturally within the fiber used for the manufacturing of the board products. Interlam cannot guarantee a color match of raw boards. Interlam currently utilizes three mills for the fabrication of raw products, each of which contain distinct variations. Due to previously stated variables, we do not offer stain as a stock finish.

2. **Pattern Number or Name**:

Every screen pattern has an identifying number or name such as "HSPVT", "Organica" or "Straight 8". The pattern choice is the second step after choosing a material for the core. A full page is dedicated to each pattern online at https://interlam-design.com/screens complete with pattern characteristics and photos of the actual product. This page will also include information about which finishes are available for the specific pattern. Not all finishes are available for all patterns. It is important to order sample to verify the scale of the pattern before specifying the product. While a hand has been included in most pattern shots for use as scale, this alone cannot give a true representation of the pattern appearance.

Panel Size:

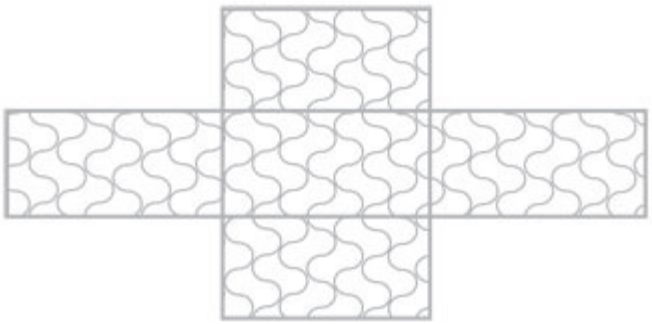
The standard panel size is 48" x 96" (4' x 8'). Custom panels can be produced for some of the screen patterns, but not all. Consult the pattern page for that information. Please contact Interlam to determine material availability for custom projects. For multiple screen panel cut-to-size projects, please forward a layout with overall dimensions via e-mail to kevin@interlam-design.com in any of the following formats: .DXF, .DWG, or PDF files. DWG files are preferred.

Panel Thickness:

Panel thicknesses for screens can vary from ¾" to 3".

Pattern Repeat Type:

Repeating Pattern Type - Repeating patterns allow the customer to fill a project area of any size using identical standard 4' X 8' panels. The standard panels fit together top-to-bottom and left-side to right- side creating a monolithic appearance. In the illustration below, 5 identical repeating panels are shown to match on all edges. The orientation of all panels must be maintained in the same direction to allow repeat. Repeating panels are only available in full 4' X 8' sheets. If nonstandard panel sizes are required, even for a repeating pattern type, please submit requested sizing to kevin@interlam-design.com for approval prior to specification.



3. **Finish**:

The final step in specifying these screen panels is to select a finish. Please consult the pattern specific page to see the list of available finishes for your specified screen pattern. Interlam offers a wide variety of finishes including:

- Factory Sanded and Primed: If you prefer to field finish your panels, we highly recommend that you have the factory sand and prime your panels. Our expert finish team hand sands every square inch of each panel including the edges. This is completed on BOTH SIDES of all screens. A factory sanded and primed finish will go through 2-3 rounds of hand sanding and primer application (latex or lacquer per the specification). Primer is sprayed from multiple directions for an even coverage over the peaks and valleys of the screen pattern. Edges are always finished as well. **It is critical that a machine sander IS NOT USED as they will damage the profile of the pattern**.
- Factory Sanded/Primed/Painted to the color of your specification: this includes the Factory Sanding and priming finish (see above), plus 2-3 rounds of light hand sanding and application of the finish paint specified for the project. Interlam uses Benjamin Moore and Sherwin Williams paint. Interlam cannot finish screens in a semi gloss or high gloss finish.
- Factory Specialty Paint: The same process as Factory Sanded/Primed/Painted listed above. Please see website (https://interlam-design.com/finishes) for images of metallic paint, antiqued paint, oxy paint, and tortoise shell paint.
- Overlay: Choose from an assortment of high pressure laminates from Lab Design Laminates (https://www.labdesignlaminate.com/) to be applied to the core substrate of your specification prior to carving. The core material is revealed allowing for a diverse range of color combinations to suit your needs.

Installation Methods:

The following information is a compilation of published information pertaining to the use and application of carved MDF/IDF products. This publication is intended to serve as an informative tool and a "sharing of information" rather than a strict directive. Each application will have unique circumstances and varied site conditions resulting in an assortment of available techniques and practices to achieve the same result. MDF/IDF products have a possible linear expansion of +/- .33%. Wood is a hygroscopic material, and under normal use conditions all wood products contain some moisture. Wood readily exchanges this molecular moisture with the water vapor in the surrounding atmosphere according to the existing relative humidity. In high humidity, wood picks up moisture and swells; in low humidity wood releases moisture and shrinks. As normal minor fluctuations in humidity occur, the resulting dimensional response in properly designed construction will be insignificant. To avoid problems, it is recommended that the relative humidity be maintained within the range of 25-55%. Uncontrolled extremes – below 20% or above 80% relative humidity-can likely cause problems. Immediately upon receipt of your order, the panels should be placed in a climate-controlled environment and allowed three days to acclimate to the existing relative humidity (within the above stated ranges) This level of humidity should be the level that will be maintained after occupation of the space. It is very important to note that the panels must be stored flat and face up to reduce the bowing and warping. When MDF/IDF panels are carved, the face of the panel is removed and creates an "unbalanced panel effect". The level of this effect varies depending upon pattern and board thickness. It is very important to note that the panels must be stored flat to reduce the bowing and warping. When MDF/IDF panels are carved, the face of the panel is removed and creates an "unbalanced panel effect". The level of this effect varies depending upon pattern and board thickness.

Our Carved MDF/IDF wood products are manufactured from 100% recycled/recovered wood chips dried to appropriate average moisture content of 4-6% and maintained at this condition up to time of shipping. Interlam cannot control the conditions the panels are exposed to during the storing and shipping process. Subsequent dimensional change in MDF/IDF is and always has been an inherent natural property of composite panels. These changes cannot be the responsibility of the manufacturer.
Specifically:

- Responsibility for dimensional change problems in IDF/MDF resulting from improper design rests with the designer/architect/specifier.
- Responsibility for dimensional change problems in IDF/MDF resulting from improper relative humidity exposure during site storage and installation rests with the General Contractor.
- Responsibility for dimensional change problems in MDF resulting from humidity extremes after occupancy rests with engineering and maintenance.

All Screens will be shipped unfinished. Sealing the back is imperative to reduce the possibility of excessive bowing and warping. All panels ordered as raw or unfinished, MUST BE SEALED OR BACK PRIMED prior to installation!! Failure to seal the back will allow moisture to be released and or absorbed from one side, resulting in excessive warping.

Seams and Installation:
The pattern will continue perfectly from one to another, however depending upon the pattern and pattern direction relative to the seam location, the severity of the seam visibility will vary. Some patterns allow the seam to be hidden within the patterns, while others may require the seam to be placed against the direction of the pattern and be more noticeable. It is recommended that the designer contact Interlam Corp. prior to specifying a pattern or specific installation technique to achieve the highest level of design intent. During this contact, the specifier should provide the following information:

- Complete layout in AutoCAD of the specified area only, including plan, elevation and section
- A selection of patterns being considered with *desired pattern direction*
- Desired finish
- Installation technique being considered
- Site conditions
- Specific core requirements I.E. fire rating, LEED's, CARB etc….

Screens may be applied using a captured border, standoffs or a custom designed method. Screens may be manufactured with solid borders or fully continued patterns.

Consideration of all the aforementioned elements will allow Interlam to determine a suggestion for optimal placement of material seams and methods of installation.

The installation of "Screens" requires more than a basic knowledge of rough carpentry and should only be performed by a certified AWI millwork company. Special conditions such as miter corner conditions, radius applications, custom shapes etc... should be addressed during the initial design phase.
FURTHER QUESTIONS SHOULD BE DIRECTED TO: kevin@interlam-design.com