



Product Evaluation Report

PER-19249

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Progressive Engineering Inc.

Initial Listing
February 1, 2020

Re-Approved

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Goshen, Indiana 46528

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Listed Product

Various Sheet Good Laminations

Listed For

Great Lakes Lamination, Inc.

1103 Maple Street
Bristol, IN 46507

Approved Laminator / Distributors

Great Lakes Lamination, Inc.

1103 Maple Street
Bristol, IN 46507

Progressive Engineering Inc. is an accredited Testing Laboratory and Third Party Quality Control Agency. This **Product Evaluation Report** represents a product that *Pei* has a follow-up service agreement with. This **Product Evaluation Report** in no way implies warranty for this product or relieves Great Lakes Lamination, Inc. of their liabilities for this product. *Pei* is accredited to ISO Standard 17020 and 17025. This **PER** is an official document if it is within one year of the initial or renewal date.

Listing Details

The Various Sheet Good Laminations covered under this **Product Evaluation Report** are used for side walls, decorative wall panels, and door skins, which are supplied to the Manufactured Housing, RV, and Park Model markets.

These Various Sheet Good Laminations have been tested and evaluated to ASTM E84, FMVSS 302 for Flame Spread for Hardwood Plywood (Meranti/Lauan), MDF and Particleboard. Along with this Listing is a quarterly ongoing testing and inspection program of Great Lakes Lamination, Inc. Quality Control Documentation.

Substrate Descriptions

Hardwood Plywood (Meranti/Lauan) consists of layers of wood veneer that are stacked together, usually oriented with the grains running at the right angle, having been bonded together using an adhesive with the assistance of heat and pressure. The adhesive product is purchased from a supplier.

MDF is an engineered wood product that is manufactured by breaking down hardwood or softwood residuals into wood fibers, combining it with wax and a resin binder and forming panels by applying high temperature and pressure. The wax synthetic resin products are purchased from a supplier.

Laminated Products

The previously mentioned substrates are laminated by Great Lakes Lamination, Inc. with vinyl or paper veneers to alter the appearance of the Substrate. The lamination process shall only use tested and approved adhesives and laminates. The lamination process follows an approved Q.C. Program.

Code Compliance

ASTM E 84 - Rating = 200 or less

FMVSS 302 Flame Spread Rating

Formaldehyde Emissions Level = .2 ppm or less for Hardwood Plywood and .3ppm or less for Particleboard.

CARB Phase 2 Formaldehyde Emissions Level = .05 ppm or less for Hardwood Plywood (CC) and .11ppm or less for MDF.

EPA TSCA Title VI Formaldehyde Compliance

Product Labeling

All the Various Sheet Goods that are to be covered by this **Product Evaluation Report** must be labeled with the following information:

1. FMVSS 302 & ASTM E84 Flame Spread Specifications
2. Date the finished good was produced (format must be month/year combination)
3. This **Product Evaluation Report** number & *Pei*'s name or Logo
4. California 93120 Compliant for Formaldehyde or CARB Phase II Compliant.
5. Statement of Compliance with "TSCA Title VI"

Note: If the finished product is two-sided, bundle marking will be acceptable.

Listed Products

The following **Products** in Table 1 meet the Flame Spread requirements as tested per ASTM E84

Table 1 - Listed Products (As of January 2020)

Description	Substrate	Overlay	Glue	FSI Class*
Hardwood Plywood (Meranti/Lauan)	2.7mm-18mm	30-50GM Paper	Wht Glue + Web	C
	2.7mm-18mm	4 Mil Vinyl	PUR Adhesive	C
	2.7mm-18mm	4 Mil Vinyl	Wht Glue + Catalyst	C
MDF	3.0mm - 19mm	30-50GM Paper	Wht Glue + Web	C

*FSI = Flame Spread Index (A = 25 or Less, B = 26 - 75, C = 76 - 200)

The following **Products** in Table 2 meet the Flame Spread requirements for a Burn Rate of LESS than 4" per minute as tested per FMVSS 302:

Table 2 - Listed Products (As of November 2019)

Description	Substrate Thickness	Overlay	Glue
Hardwood/Plywood (Meranti)	2.7mm - 18mm	30-50gm Paper	Wht Glue + Web Glue
		4 Mil Vinyl	PUR Adhesive
		4 Mil Vinyl	Wht Glue + Catalyst
Medium Density Fiberboard (MDF)	3.0mm - 19mm	30-50gm Paper	Wht Glue + Web Glue

*Thickness of finished goods are approximates

Quality Assurance Documentation

- All testing documentation is kept on file at Great Lakes Lamination facility in Bristol, Indiana and at *Pei*.
- A Quality Control Manual for Great Lakes Lamination - Dated: June, 2019.
- A Follow-up Listing & Inspection agreement between *Progressive Engineering Inc.* and Great Lakes Lamination, Inc.
- A SDS sheet from Great Lakes Lamination, Inc. for Composite Wood Products
- PEI Test Report 2019-6382 - FMVSS 302 and CMVSS 302 Flammability of Interior Materials Test - Dated November 19, 2019.
- Test Report 19-12135 - Standard Method of Test for Surface Burning Characteristics of Building Materials - ASTM E84-19B - Dated December 10, 2019
- Test Report 19-12136 - Standard Method of Test for Surface Burning Characteristics of Building Materials - ASTM E84-19B - Dated December 10, 2019
- Test Report 20-01281 - Standard Method of Test for Surface Burning Characteristics of Building Materials - ASTM E84-19B - Dated January 30, 2020
- Test Report 20-01282 - Standard Method of Test for Surface Burning Characteristics of Building Materials - ASTM E84-19B - Dated January 30, 2020

