



# Product Evaluation Report

**PER-08027**

Page 1 of 3

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*Progressive Engineering Inc.*

**Initial Listing**  
April 1, 2008

**Re-Approved**  
May 4, 2010

58640 State Road 15  
Goshen, Indiana 46528

## Various Wood Products

### Listed For

#### **Genesis Products Inc.**

2608 Almac Court  
Elkhart, IN 46514

### Approved Laminator / Distributor

#### **Genesis Products Inc.**

2515 Industrial Park Drive  
Goshen, IN 46526

*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 **Genesis Products 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 Wood Products** covered under this Listing are used for laminated paneling, wrapped materials, interior passage doors and hardwood and laminated cabinets which are supplied to the Manufactured Housing, RV and Park Model markets.

These Various Wood Products have been tested and evaluated for ASTM E84 Flame Spread and Formaldehyde Emissions per HUD 24 CFR Part 3280.308 for plywood and particleboard. Along with this Listing is a quarterly ongoing quality assurance and testing / inspection program of Genesis Products Inc.'s Quality Control Documentation.

**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. There is usually an odd number of plies as the symmetry makes the board less prone to warping. Plywood is a composite material. This product is purchased from a supplier.

**Medium Density Fiberboard** (MDF) is an engineered wood product that is formed by breaking down softwood into wood fibers' and then combining it with wax and resin binding it together using heat and pressure. This product is denser than normal particle board. This product is purchased from a supplier.

**Particleboard** is an engineered wood product that is manufactured from wood particles such as wood chips, sawmill shavings or even saw dust that is bonded together with a synthetic resin and then pressed or bonded together. This product is purchased from a supplier.

**Genply** is a recycled wood product that is composed of wood based composite panel produced from domestic softwood and sawmill waste. Genply is smooth on both sides and has a consistent color. This "engineered wood" has no core voids or gaps, is very flexible and strong and has either met or exceeded industry standards for Lauan paneling. This product was created and manufactured by Genesis Products Inc. and is currently used in many RV applications.

## Laminated Products

The previously mentioned Substrates are laminated by Genesis Products Inc. with embossed vinyl, papers and decorative, or wood veneers to alter the appearance of the Substrate. The lamination process uses only tested and approved adhesives and laminates. The lamination process follows an approved Q.C. Program.

## Quality Assurance Documentation

All testing documentation is kept on file at Genesis Products Inc. facility in Elkhart, Indiana and at PEI.

A Quality Control Manual for the Sheet Good Laminating - Dated January 2, 2003.

A follow-up Listing & Inspection agreement between Pei and Genesis Products Inc.

A MSDS sheet for MDF (Medium/High Density Fiberboard) dated June, 2004.

A MSDS sheet for West Pine MDF (Medium Density Fiberboard) dated June, 2005.

A MSDS sheet for MDF (Medium Density Fiberboard) dated May, 2005

A MSDS sheet for MDF (Medium Density Fiberboard) dated July, 2005

A MSDS sheet from .105 Unicor 302a Board, Dated September, 2003

A MSDS sheet for UltraBlend Particleboard (Urea-Formaldehyde Bonded) dated December, 2000,  
Rev April 2007.

A MSDS sheet for MDF (Medium Density Fiberboard) dated January, 2008

A MSDS sheet for Hardwood Plywood (Urea-Formaldehyde Bonded) dated January, 2003.

A MSDS sheet for Particleboard, dated March, 2008.

A MSDS sheet for Particleboard, dated April, 1997.

**Quality Assurance Documentation**

A MSDS sheet for Various Hardwood Cabinet Doors, paper/vinyl wrapped MDF doors, stiles, borders, moulding, finished/prefinished HPL countertop, paper/vinyl coated Lauan, Banak, particleboard, or gypsum wallboards, slotwall sheets, vanities, medicine cabinets, foil doors, Corian or "other" solid surface counter tops by Adorn, dated March, 2007.

A MSDS sheet for Melamine Top Coated Lightweight paper dated August, 2007.

A MSDS sheet for Natural Embossed Lightweight paper dated August, 2007.

A MSDS sheet for Pre-coated paper dated March, 2008.

A MSDS sheet for semi rigid vinyl film dated January, 2000.

A MSDS sheet for clear or colored film dated, June, 1994.

A MSDS sheet for Vinyl film dated, May, 1993.

A MSDS sheet for PVC Film dated, November, 1999.

A MSDS sheet for reverse print vinyl film dated, December 2007.

A MSDS sheet for Paper Sheet Product, dated December 2007.

A MSDS sheet for Paper Sheet Product, dated January, 2008.

A MSDS sheet for Printed and Coated paper, dated March, 2008.

A MSDS sheet for Thermoplastic Adhesive, dated January, 2008.

A Technical data sheet for Polyvinyl Acetate Adhesive.

A Preliminary Technical Data sheet for Vinyl Laminating Adhesive.

A MSDS sheet for Vinyl Laminating Adhesive, dated March 2003.

A MSDS sheet for Polyvinyl Acetate adhesive dated, June 2002.

A MSDS sheet for Polyvinyl Acetate adhesive dated, April, 2002.

A MSDS sheet for Water Thinned Paint dated January 2001.

Test Report F-8953 for ASTM E1333-96, dated November, 2006.

Test Report F-9053 for ASTM E1333-96, dated September, 2007.

Test Report F-9217 for ASTM E1333-96, dated July, 2007.

Test Report F-9269 for ASTM E1333-96, dated September, 2007.

Test Report F-9446 for ASTM E1333-96, dated January 2008.

Test Report F-9447 for ASTM E1333-96, dated January 2008.

Test Report per ANSI/HPVA HP-1-2000, Section 4.6 Three-Cycle Soak Test, dated November 2002

Test Report per the Fleetwood Test for Creep Resistance of Ceiling & Decorative Panels, dated November 7, 2002.

Test Report per the Fleetwood Test for Creep Resistance of Ceiling & Decorative Panels, dated June 30, 2005.

Test Report 02-109 for Flame Spread Testing per ASTM E84-01, dated December 16, 2002.

**Code Compliance**

**ANSI A119.2/NFPA 1192 Standard  
on Recreational Vehicles**

**HUD 24 CFR Part 3280.308  
HUD 24 CFR Part 3280.406**

**ANSI A119.5 Recreational Park  
Trailers**

**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.**

**RVIA Phase 1 Formaldehyde Emissions Level = .08 ppm or less for Hardwood Plywood (VC/CC) and .18ppm or less for Particleboard and .21ppm or less for MDF.**

**CARB Phase 1 Formaldehyde Emissions Level = .08 ppm or less for Hardwood Plywood (CC) and .18ppm or less for Particleboard and .21ppm or less for MDF.**

**CARB Phase 2 Formaldehyde Emissions Level = .05 ppm or less for Hardwood Plywood (CC) and .09ppm or less for Particleboard.**

**Product Labeling**

All the Various Wood Products that are to be covered by this PER must be labeled with at least the following information:

1. The ASTM E84 Flame Spread Rating
2. The thickness of the substrate
3. The Mill Identification Number / Name
4. This PER number & Pei's name or Logo
5. The Formaldehyde Emissions Level per HUD

The following **Products** meet the requirements set forth by RVIA and HUD for Formaldehyde levels under .2 ppm for Meranti and .3 ppm for Particleboard.

<b>Listed Products</b>			
Description	Thickness	Overlay / Finish	Adhesive
<b>Hardwood Plywood (Meranti)</b>	2.7mm	4 Mil Vinyl	✓
<b>MDF</b>	5/8" MDF	RAW	
	3.0 mm	30 Gram	✓
<b>Hardwood Plywood (F4* Meranti)</b>	2.7mm	4 Mil Vinyl	✓

The following **Products** meet the Flame Spread requirements of 200 or less as tested per ASTM E84:

<b>Listed Products (As of March 29, 2010)</b>			
Description	Substrate	Overlay	Glue
<b>F4S Meranti Lauan</b>	3.0 to 18mm Meranti	2-4 Mil Vinyl	PVC E4
<b>Imported PVC</b>	3.0MM	2-4 Mil Vinyl	White
<b>Domestic PVC</b>	3.0MM	2-4 Mil Vinyl	White
<b>Domestic ABS</b>	1.5MM	2-4 Mil Vinyl	White
<b>EPS Paperbacked</b>	5.0MM	2-4 Mil Vinyl	White

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

<b>Listed Products (As of May 4, 2010)</b>			
Description	Substrate	Overlay	Glue
<b>F4* Lauan (Meranti)</b>	2.7 to 18mm Meranti	2 - 4 Mil Vinyl	White
	3.4 to 18mm Meranti	6 Mil Vinyl	White
	3.4 to 18mm Meranti	30 - 50gm Paper	White
<b>ILW</b>	3.0MM	2-4 Mil Vinyl	White
<b>MDF</b>	3.0MM	30 - 50gm Paper	White
	1/2"	30 - 50gm Paper	White



**Lauan**



**MDF**



**Particleboard**