



# Product Evaluation Report

**PER-1144**

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This Document Published By:

*Progressive Engineering Inc.*

Initial Listing  
Jul-11

Re-Approved

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Goshen, Indiana 46528

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## Listed Product

**Flat & Raised Panel Cabinet Doors  
5.2mm Industrial Panel with MDF Core**

## Middlebury Hardwood Products

101 Joan Drive  
Middlebury, IN 46540

## Listed For

## Middlebury Hardwood Products

101 Joan Drive  
Middlebury, IN 46540

*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 **Middlebury Hardwood Products** 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 Cabinet Doors that are covered under this Listing are used for different size and style cabinets which are supplied to the Manufactured Housing, RV and Park Model markets.

These various cabinets have been tested and evaluated to ASTM E1333-96 for Formaldehyde Emissions per HUD 24 and ASTM E162 for Flame Spread for conformance to HUD 24 CFR Part 3280.204 and 3280.308. Along with this Evaluation Report is a quarterly ongoing testing program and inspection program of Middlebury Hardwood Products Inc. Quality Control Documentation.

## Substrate Descriptions

**Hardwood** is of higher density and hardness than a softwood. Hardwood species are more varied than that of a softwood. Hardwoods are generally more resistant to decay when used for exterior applications. Middlebury Hardwood Products purchases "kiln dried" hardwood. Kiln drying allows for the wood to be dried to a relatively low moisture content. Based on this process Middlebury Hardwood Products specifies their hardwood products to be held at a 6 - 8 % moisture content. Flat panel and Raised Veneer doors are made with Hardwood rails with a hardwood veneer that is bonded to a composite insert. Raised Panel Doors are made entirely of Hardwood. These products are all ordered to be compliant with California Air Regulation 93120, Phase II.

## Finished Products

The previously mentioned substrates have a finished stain applied by Middlebury Hardwood Products Inc. to alter the appearance of the substrate. The finishing process uses only tested and approved stains and finishes. The finishing process follows an approved Q.C. Program.

## Quality Assurance Documentation

All testing documentation is kept on file at Middlebury Hardwood Products Inc. facility in Middlebury, Indiana and at **PEI**. A Quality Control Manual for Compliance with 24 CFR 3280.308 - Dated 5/20/11

A follow-up Listing & Inspection agreement between **Pei** and Middlebury Hardwood Products Inc.

Test Report FS - 4785 - 4789 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 1/6/2006.

Test Report FS - 4815 - 4819 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 2/3/2006.

Test Report FS - 4830 - 4834 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 2/28/2006.

Test Report FS - 4882 - 4886 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 4/10/2006.

**Quality Assurance Documentation cont.**

Test Report FS - 4966 - 4970 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 8/02/2006.

Test Report FS - 4984 - 4987 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 9/05/2006.

Test Report FS - 4988 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 9/05/2006.

Test Report FS - 5026 - 5041 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 10/05/2006.

Test Report FS - 5048 - 5056 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 11/09/2006.

Test Report FS - 5119- 5120 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 1/12/2007.

Test Report FS - 5121- 5122 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 1/12/2007.

Test Report FS - 5151- 5154, 5174 - 5176, 5179 - 5183 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 4/27/2007.

Test Report FS - 5203- 5204, 5244 - 5247 , 5250 - 5251 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 5/25/2007.

Test Report FS - 5284- 5287 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 8/30/2007.

Test Report FS - 5418, 5428- 5430 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 12/27/2007.

Test Report FS - 5408- 5411 - ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials - Dated 11/29/2007.

Test Report 3172631SAT-018 - ASTM 162-09, Standards Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 3/16/2009.

Test Report MHP042309-8 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 6/11/2009.

Test Report MHP072209-17 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 10/19/2009.

Test Report MHP072209-18 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 10/19/2009.

Test Report MHP082409-33 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 12/10/2009.

Test Report MHP020210-16 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 5/10/2010.

Test Report MHP020210-17 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 6/07/2010.

Test Report MHP051910-17 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 8/9/2010.

Test Report MHP100610-42 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 10/7/2010.

Test Report MHP100610-43 - ASTM E162-09, Standard Test Method for Surface Flammability of Materials Using Radiant Heat Energy Source. - Dated 10/25/2010.

Test Report MHP112509-81 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 2/18/2010.

Test Report MHP020210-15 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 5/25/2010.

Test Report MHP051910-15 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 7/27/2010.

Test Report MHP020108-24 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 8/09/2010.

Test Report MHP020108-24 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 10/11/2010.

**Quality Assurance Documentation cont.**

Test Report MHP011311-23 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 2/23/2011.

Test Report MHP020108-24 - ASTM E1333-96, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber. Dated 4/21/2011.

**Tested To:**

**ASTM E162-09 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source**

**ASTM E1333-96 - Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber**

**Code Compliance**

**HUD 24 CFR Part 3280.204**

**HUD 24 CFR Part 3280.308**

**Formaldehyde Emissions Level = .3ppm or less for Certified Industrial Panel.**

**ASTM E 84 & ASTM E162 Rating = 200 or less**

**FMVSS 302 Flame Spread Rating**

**Product Labeling**

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

1. The Formaldehyde Emissions Level per HUD
2. The Flame Spread Rating = 200 or less per ASTM E162-94 and / or ASTM E84
3. The Customer Part Number
4. This PER number & Pei's name or Logo

The following **Products** meet the requirements set forth by RVIA and HUD for Flame Spread rating of 200 or less per ASTM E84 & ASTM E162-09 for cabinet doors:

<b>Listed Products</b>			
<b>Description</b>	<b>Substrate - Style</b>	<b>Stain</b>	<b>Sealant / Top Coat</b>
Ash Cabinet Door (1/4" - 3/4")	Cabinet Door	<b>Accessa / Bomar</b>	<b>Becker</b>
Beech Cabinet Door (1/4" - 3/4"	Cabinet Door	<b>Accessa / Bomar</b>	<b>Becker</b>
Cherry Cabinet Door (1/4" - 3/4")	Cabinet Door	<b>Accessa</b>	<b>Becker</b>
Hickory Cabinet Door (1/4" - 3/4")	Cabinet Door	<b>Accessa</b>	<b>Becker</b>
5.2mm Hardwood Plywood with MDF Veneer Core	Industrialized Panel	<b>Accessa</b>	<b>Becker</b>
Hard / Soft Maple Cabinet Door (3/4")	Cabinet Door	<b>Accessa / Bomar</b>	<b>Becker</b>
Oak Cabinet Door (1/4" - 3/4")	Cabinet Door	<b>Accessa / Bomar</b>	<b>Becker</b>
Walnut Cabinet Door (1/4" - 3/4")	Cabinet Door	<b>Accessa / Bomar</b>	<b>Becker</b>

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

<b>Listed Products</b>			
Description	Substrate - Style	Stain	Sealant / Top Coat
HWPW-VC (Oak)	Cabinet Door	<b>Accessa / Bomar</b>	--
HWPW-CC (MDF)	Cabinet Door	<b>Accessa (1-2 sides)</b>	--

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</b>			
Description	Substrate - Style	Stain	Sealant / Top Coat
Flat Panel Door with Ash (MDF) Rail and Beech Insert	Cabinet Door	<b>STN29</b>	<b>LQ1</b>
Raised Panel Door (Beech)	Cabinet Door	<b>STN22</b>	<b>LAQ1</b>
European Beech Hardwood	Panel	<b>N/A</b>	<b>N/A</b>

