



## FIRE RATED LAMINATES

### General

Folia high pressure laminate with fire rated properties are suitable for applications where fire retardant properties are required by building codes, i.e., elevator cabs, stairwells, public areas, and hospitals. This laminate is also suitable for segments within the transportation industry.

Folia fire rated laminates incorporate 3 additional performance features:

- Superior wear resistance
- Superior chemical resistance
- Superior stain resistance

**Limitations:** Folia fire rated laminates are non-postforming.

### Certifications

30PL (0.032" ± 0.005")	GPPL (0.048" ± 0.005")	B3PL (0.028" ± 0.004")	BKPL (0.048" ± 0.005")	SOLID PHENOLIC (1/4" – 1 1/4")
<ul style="list-style-type: none"> <li>▪ UL/ULC</li> <li>▪ Class 1/Class A</li> </ul>	<ul style="list-style-type: none"> <li>▪ UL/ULC</li> <li>▪ Class 1/Class A</li> </ul>	<ul style="list-style-type: none"> <li>▪ UL/ULC</li> <li>▪ Class 1/Class A</li> </ul>	<ul style="list-style-type: none"> <li>▪ UL/ULC</li> <li>▪ Class 1/Class A</li> </ul>	<ul style="list-style-type: none"> <li>▪ UL</li> <li>▪ Class 1</li> </ul>
CAN/ULC S-102 The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"	CAN/ULC S-102 The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"	CAN/ULC S-102 The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"	CAN/ULC S-102 The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"	CAN/ULC S-102 The basic standard to investigate products in this category is UL723, "Test for Surface Burning Characteristics of Building Materials"
Transport Canada Board of Steamship Inspection. Certificate of Approval T.C.192.G1.174	Transport Canada Board of Steamship Inspection. Certificate of Approval T.C.192.G1.173	Transport Canada Board of Steamship Inspection. Certificate of Approval T.C.192.G1.176	Transport Canada Board of Steamship Inspection. Certificate of Approval T.C.192.G1.175	-
<ul style="list-style-type: none"> <li>▪ U.S. Department of Transportation United States Coast Guard</li> </ul>	<ul style="list-style-type: none"> <li>▪ U.S. Department of Transportation United States Coast Guard</li> </ul>	<ul style="list-style-type: none"> <li>▪ U.S. Department of Transportation United States Coast Guard</li> </ul>	<ul style="list-style-type: none"> <li>▪ U.S. Department of Transportation United States Coast Guard</li> </ul>	-



## Performance Properties

	<b>30PL</b> (0.032" ± 0.005")	<b>GPPL</b> (0.048" ± 0.005")	<b>B3PL</b> (0.028" ± 0.005")	<b>BKPL</b> (0.048" ± 0.005")	<b>SOLID PHENOLIC</b> (1/4" – 1 1/4")
<b>1. Unbonded</b>					
▪ flame spread	10	20	40	35	-
▪ smoke developed	100-150	125	15	15	-
<b>2. Bonded *</b>					
▪ flame spread	0	0	5	5	-
▪ smoke developed	30	40	0	5	-
▪ flame spread	-	-	-	-	25
▪ smoke developed ( not bonded or unbonded )	-	-	-	-	200
<b>3. Bonded + ** to wood particleboard</b>					
▪ flame spread	15	15	-	-	-
▪ smoke developed	20	25	-	-	-

\* bonded with Borden chemical RS-224 adhesive in accordance with instructions accompanying the adhesive. Bonded to an Inorganic Reinforced Cement Board.

\*\* bonded with Borden System II, Borden System III or Wilsonart Type II adhesives in accordance with the instructions accompanying the laminated plastic. #Nominal 3/8 in. thick or greater integrally treated wood particleboard bearing the Classification Marking of Underwriters Laboratories Inc. reading "Wood Particleboard" with Surface Burning Characteristics not in excess of 25 for flame spread and 25 for smoke developed.



## NEMA Performance Properties for Fire-Rated Laminate

NEMA Property	HGF (GPPL)	VGF (30PL)
Thickness tolerance	0.048" ± 0.005" (1.2mm ± 0.12mm)	0.032" ± 0.005" (0.8mm ± 0.12mm)
Surface Wear Resistance (cycles)	400 (min.)	400 (min.)
Boiling Water Resistance	No effect	No effect
High Temperature Resistance	Slight effect	Slight effect
Radiant Heat Resistance	75 sec. (min.)	50 sec. (min.)
Stain Resistance: ▪ Reagents 1-10 ▪ Reagents 11-15	No effect Moderate effect	No effect Moderate effect
Light Resistance	Slight effect (min.)	Slight effect (min.)
Dimensional Stability ▪ Machine Direction ▪ Cross Direction	0.50% (max.) 0.90% (max.)	0.70% (max.) 1.20% (max.)
Ball Impact Resistance	45" (1150 mm)	20" (500 mm)
Dart Impact Resistance	18" (450 mm)	8" (200 mm)
Cleanability	20 (max.)	20 (max.)

*The testing was conducted according to the standard test methods set by the "American National Standards Institute/National Electrical Manufacturers Association (ANSI/NEMA) LD3-2005," for high pressure laminate.*

*Since Fire-Rated backer sheets are not intended to be exposed to light, wear or everyday use, no physical property tests are in current use.*



**Available Surface Textures for Folia Fire Rated Laminates**

TEXTURES	SURFACE GLOSS VALUE *
Cashmere – a fine, matte texture with a slight sheen	8-12
Diamond – a fine beaded texture which minimizes smudges, finger marks and offers optimum scratch resistance.	10-16
Gloss – a flat texture with a high sheen	90-110
Laqwood – a slightly embossed woodgrain texture	20-30
Velvatex – a smooth furniture finish texture	10-20
Metalux – a dimensional texture with finely abraded directional lines conveying the feel of brushed metal	24-28

\* CAN3-A172-M79

**Standard Nominal Panel Thickness for Fire Rated laminates:**

<i>Decorative Laminate - Imperial Measure (in.)</i>	<i>Product Code</i>	<i>Metric measure (mm)</i>	<i>Thickness Tolerance</i>
0.048"	GPPL	1.2 mm	±0.005"/0.12 mm
0.032"	30PL	0.8 mm	±0.005"/0.12 mm

<i>Backing Grade Laminate – Imperial Measure (in.)</i>	<i>Product Code</i>	<i>Metric Measure (Mm)</i>	<i>Thickness Tolerance</i>
0.048"	BKPL	1.2 mm	±0.005"/0.12 mm
0.028"	B3PL	0.7 mm	±0.004"/0.10 mm



**Standard Nominal Panel Thickness for Fire Rated laminates:**

<i>Solid Phenolic Core Panel</i> <i>Imperial Measure( in.)</i>	<i>Product Code</i>	<i>Metric Measure (Mm)</i>	<i>Thickness Tolerance</i>
1/4"	SF25	6.4 mm	±5% of thickness
3/8"	SF38	9.6 mm	±5% of thickness
1/2"	SF50	12.7 mm	±5% of thickness
5/8"	SF63	15.9 mm	±5% of thickness
3/4"	SF75	19.0 mm	±5% of thickness
1"	F100	25.4 mm	±5% of thickness
1 ¼ "	F125	32.0 mm	±5% of thickness

**Standard Panel Sizes for Fire Retardant laminates:**

<i>DECORATIVE LAMINATE</i>	
<i>Imperial Measure (in.)</i>	<i>Metric measure (mm)</i>
4' x 8'	1220 mm x 2440 mm
5' x 12'	1525 mm x 3660 mm

<i>BACKING GRADE LAMINATE</i>	
<i>Imperial Measure (in.)</i>	<i>Metric measure (mm)</i>
4' x 8'	1220 mm x 2440 mm
5' x 12'	1525 mm x 3660 mm

<i>SOLID PHENOLIC CORE PANEL</i>	
<i>Imperial Measure (in.)</i>	<i>Metric measure (mm)</i>
4' x 8'	1220 mm x 2440 mm
4' x 10'	1220 mm x 3050 mm
5' x 8'	1525 mm x 2440 mm
5' x 10'	1525 mm x 3050 mm
5' x 12'	1525 mm x 3660 mm

