1. Manufacturing facility location

80 L a White Dr
Fletcher, NC
28732, USA

2. Product Description

Recommended Uses
Arborite® Fire-Rated Laminate is recommended for interior application where fire codes specify or the environment suggests a fire-resistant and smoke-resistant surface.

It may be applied as decorative surfacing for casework and cabinets, wainscoting, interior doors, and wall panel and divider systems. This laminate is particularly appropriate for surfacing furniture in public places such as airports, hotels, office buildings and institutions such as hospitals and schools. Fire-Rated Laminate can offer a Class I or A fire rating, provided fire-retardant adhesives and substrates are used.

- **Vertical Surface (VGF) Type 30PL**: Intended to surface walls in public spaces and corridors, front panels on commercial casework and other applications where a functional, durable, decorative surface must absorb somewhat less impact than a comparable horizontal surface.
- **General Purpose (HGF) Types GPPL**: Produced for both horizontal and vertical applications where the surface must perform under constant use.
- **Fire-Rated Backer Type B3PL**: A stabilizing backer sheet for applications where the decorative surface is Vertical Surface **Type 30PL**.
- **Fire-Rated Backer Type BKPL**: A stabilizing backer sheet for applications where the decorative surface is General Purpose **Type GPPL**.

*For Arborite Compact Fire-Rated Grade, please refer to the “Arborite’s Compact Grades Laminates tech data sheet”.*

Product Composition
The decorative surface is composed of melamine resin-treated decorative surface papers. Special kraft core sheets, used to obtain the desired thickness, are impregnated with phenolic resin.

Basic Limitations
Arborite® Laminate is intended for interior use only and should be protected from continuous exposure to direct sunlight, extremes in humidity and temperatures greater than 275°F (135°C). It is not structural material and must be bonded to a suitable substrate.

Arborite® Laminate should not be used as direct covering for plaster or concrete walls, or for gypsum wallboard. It should not be exposed to flame, molten metal, metallic sparks or intense, direct sunlight. Nor should it be used as cutting surfaces.

Patterns & Colors
Available in the full range of Arborite® solid colors, stones, marbles, woodgrains and patterns. See all patterns and colors at [www.arborite.com](http://www.arborite.com). Please order an actual sample before specifying. Confirm finish availability on individual designs.
TECHNICAL DATA
Arborite® Fire Rated Laminate
Types: 30PL, GPPL, B3PL and BKPL

Finishes
- **Cashmere (CA)** – a fine, matte texture with a slight sheen
  Nominal Glossometer Reading = 10
- **Casual Wood (CW)** – a finish that adds visual interest with soft ticking
  Nominal Glossometer Reading = 4
- **Diamond (DI)** – a fine beaded texture which minimizes smudges, finger marks and offers optimum scratch resistance.
  Nominal Glossometer Reading = 13
- **Evergrain (EV)** – a fine woodgrain texture with slight sheet
  Nominal Glossometer Reading = 6
- **Gloss (GL)** – a flat texture with a high sheen
  Nominal Glossometer Reading = 110
- **Laqwood (LQ)** – a slightly embossed woodgrain texture
  Nominal Glossometer Reading = 25
- **Metalux (MX)** – a dimensional texture whose finely abraded directional lines convey the luster and feel of brushed metal
  Nominal Glossometer Reading = 26
- **Refined Matte (RM)** – a smooth non-gloss finish resembling actual wood veneer
  Nominal Glossometer Reading = 3
- **Structured (SR)** – a highly embossed linear texture suitable for woodgrains, solids and linear patterns
  Nominal Glossometer Reading = 10
- **Velvatex (VL)** – a smooth furniture finish texture
  Nominal Glossometer Reading = 14

**NOTE:** Nominal Glossometer Readings are made at a 60° angle of incidence.

Sheet Sizes

<table>
<thead>
<tr>
<th>Sheet Size</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>48&quot; x 96&quot;</td>
<td>(1219mm x 2438mm)</td>
</tr>
<tr>
<td>48&quot; x 120&quot;</td>
<td>(1219mm x 3048mm)</td>
</tr>
</tbody>
</table>

Sheet Thicknesses

<table>
<thead>
<tr>
<th>Type</th>
<th>Typical Arborite Thickness</th>
<th>Weight PSF</th>
</tr>
</thead>
</table>
| Vertical Surface Type 30PL (VGF) | 0.032" ± 0.005"  
(0.81mm ± 0.13mm) | 0.274# |
| General Purpose Type GPPL (HGF) | 0.048" ± 0.005"  
(1.22mm ± 0.13mm) | 0.438# |
| Backer Type B3PL | 0.030" ± 0.004"  
(0.76mm ± 0.10mm) | 0.223# |
| Backer Type BKPL | 0.050" ± 0.005"  
(1.27mm ± 0.13mm) | 0.359# |

**NOTE:** Minimum sheet order requirements: 2 sheets by size, finish and product type
### 3. Technical Data

#### Physical Properties of Fire-Rated Laminate

<table>
<thead>
<tr>
<th>ISO 4586 Test</th>
<th>Typical Arborite Type 30PL (VGF)</th>
<th>ISO 4586-3 VGF</th>
<th>Typical Arborite Type GPPL (HGF)</th>
<th>ISO 4586-3 HGF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>0.032&quot; ± 0.005&quot; (0.8mm ± 0.12mm)</td>
<td>N/A</td>
<td>0.048&quot; ± 0.005&quot; (1.2mm ± 0.12mm)</td>
<td>N/A</td>
</tr>
<tr>
<td>Surface Wear Resistance</td>
<td>Meets or Exceeds 400</td>
<td>350 (min.)</td>
<td>Meets or Exceeds 400</td>
<td>350 (min.)</td>
</tr>
<tr>
<td>Boiling Water Resistance</td>
<td>No effect</td>
<td></td>
<td>No effect</td>
<td></td>
</tr>
<tr>
<td>High Temperature Resistance</td>
<td>Slight effect</td>
<td></td>
<td>Slight effect</td>
<td></td>
</tr>
<tr>
<td>Radiant Heat Resistance</td>
<td>205 seconds</td>
<td>≥ 200 sec.</td>
<td>205 seconds</td>
<td>≥ 200 sec.</td>
</tr>
<tr>
<td>Stain Resistance Reagents 1-10</td>
<td>No effect</td>
<td>No effect</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td>Light Resistance</td>
<td>Slight effect</td>
<td></td>
<td>Slight effect</td>
<td></td>
</tr>
<tr>
<td>Dimensional Stability Machine Direction</td>
<td>0.40%</td>
<td>1.10% (max.)</td>
<td>0.30%</td>
<td>1.10% (max.)</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>35&quot; (889mm)</td>
<td>23.5&quot; (600mm)</td>
<td>65&quot; (1651mm)</td>
<td>31.5&quot; (800mm)</td>
</tr>
<tr>
<td>Cleanability (cycles)</td>
<td>10</td>
<td>20 (max.)</td>
<td>10</td>
<td>20 (max.)</td>
</tr>
<tr>
<td>Appearance</td>
<td>No ABC defects</td>
<td>No ABC defects</td>
<td>No ABC defects</td>
<td>No ABC defects</td>
</tr>
</tbody>
</table>

**Note:** 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.
Typical Fire Test Data

Typical Flame Spread and Smoke Developed Properties

<table>
<thead>
<tr>
<th>ISO 4586 Type</th>
<th>Arborite Product</th>
<th>Unbonded</th>
<th>Bonded to Incombustible Cement Board</th>
<th>Bonded to Fire-Rated Particleboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGF</td>
<td>30PL</td>
<td>15/15</td>
<td>15/0</td>
<td>15/20</td>
</tr>
<tr>
<td>HGF</td>
<td>GPPL</td>
<td>15/15</td>
<td>15/0</td>
<td>15/25</td>
</tr>
<tr>
<td>BKV</td>
<td>B3PL</td>
<td>15/0</td>
<td>15/0</td>
<td>20/10</td>
</tr>
<tr>
<td>BKH</td>
<td>BKPL</td>
<td>20/0</td>
<td>15/0</td>
<td>10/15</td>
</tr>
</tbody>
</table>

NOTE: Adhesive to attain Flame Spread and Smoke Developed figures for bonded laminates (above) is resorcinol. Fire-rated particleboard is Duraflake, with a UL rating of 25/25, or comparable material. The above values are CUL (Canadian Underwriters Lab) approved.

Model Code Designations used to determine flame spread classification

<table>
<thead>
<tr>
<th>Flame Spread Classification (Maximum Rating)</th>
<th>International (IBC)</th>
<th>Life Safety (NFPA 101)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>75</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>200</td>
<td>C</td>
<td>C</td>
</tr>
</tbody>
</table>


All Model Codes regulate the generation of smoke by interior finish material. In all cases they specify a maximum smoke development rating of 450.

4. Codes and Certifications

General Fire Code Compliance
Test data for code compliance is from the UL 723 Tunnel Test method. This procedure has been cataloged under the following designations:

- American Society for Testing Materials: ASTM E 84
- American Society for Testing Materials: ASTM E 162
- American Society for Testing Materials: ASTM E 662
- American National Standards Institute: ANSI No. 2.5
- National Fire Protection Agency: NFPA No. 255
- Underwriters Laboratories, Inc.: UL No. 723

This test data is the basis for fire codes written by various responsible groups, including:

- BBC: Basic Building Code (Building Officials Conference of America. Used in Midwest and Northeast.)
- NFPA: National Fire Protection Agency (Building Exits Code, Section #101.)
- SSBC: Southern Standards Building Code (Southern Building Codes Congress. Used primarily in the South.)
TECHNICAL DATA
Arborite® Fire Rated Laminate
Types: 30PL, GPPL, B3PL and BKPL

Many local codes, especially in densely populated areas, have been patterned after these. Examples include the cities of Los Angeles and San Francisco and the Port Authority of New York. Approvals include:

**General Standards**
Fire-Rated Laminate conforms to the ISO 4586-1:2018 Standard for VGF and HGF (Types 30PL and GPPL, respectively).

NSF International (NSF) #35, “Laminated Plastic for Surfacing for Food Service Equipment.” All solid colors and printed patterns in Basic Types 30PL and GPPL, with Cashmere (CA) finish comply.

The UL GREENGUARD® Environmental Institute™ has awarded its GREENGUARD® Indoor Air Quality Certification to Arborite Fire rated Laminates. All Arborite Fire rated Laminate product types were tested under the stringent GREENGUARD Standards for low-emitting products. All GREENGUARD Indoor Air Quality Certified products ensure minimal impact on the indoor environment. For a copy of the certificate, visit www.greenguard.org.

**Specific Product Standards**
Fire-Rated Laminate meets the following federal codes:

- **Aircraft Interiors**

- **Military/Ships**

<table>
<thead>
<tr>
<th>Fire-Rated Product Type</th>
<th>U.S.C.G. (IMO FTP Code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 30PL</td>
<td>164.112/A8/0</td>
</tr>
<tr>
<td>Type GPPL</td>
<td>164.112/A8/0</td>
</tr>
<tr>
<td>Type B3PL</td>
<td>164.112/A11/0</td>
</tr>
<tr>
<td>Type BKPL</td>
<td>164.112/A11/0</td>
</tr>
</tbody>
</table>

- **Mobile Homes**

- **Motor Vehicles/Interiors**
5. **Installation: Fabrication and Assembly Recommendations**

Arborite Laminate must be bonded to a substrate of reliable quality and appropriate fire rating, such as particleboard, incombustible cement board or plywood with one A-face. Bond with adhesives, and follow the techniques recommended by the adhesive manufacturer. Permanent adhesives are recommended such as specialized PVAs, phenol/resorcinol, resorcinol, and epoxy. Contact cement, such as Wilsonart Adhesives, also may be used.

Take care to ensure an appropriate moisture balance between the laminate and the substrate prior to fabrication. The face and backing laminates and the substrate should be conditioned in the same environment for 48 hours before fabrication.

Recommended conditioning temperature is about 75°F (24°C). Laminates should be conditioned at 45% to 55% relative humidity.

To avoid stress cracking, do not use square-cut inside corners. All inside corners should have a minimum of 1/8" (3.18mm) radius, and all edges should be routed smooth.

**Fabricating for Fire Rating Concerns**

Flame Spread and Smoke Developed data for products fabricated with Arborite Fire-Rated Laminate vary with the choice of substrate and adhesive, as well as with pressing conditions. In general, these factors range from most to least fire-retardant, as shown below:

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Adhesive</th>
<th>Pressing Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incombustible</td>
<td>Resorcinol</td>
<td>Hot pressed/cold</td>
</tr>
<tr>
<td>Fire-Rated Particleboard</td>
<td>Phenol/Resorcinol</td>
<td>Cold pressed/long</td>
</tr>
<tr>
<td>Conventional Particleboard*</td>
<td>Casein</td>
<td>Cold pressed/short</td>
</tr>
<tr>
<td>Conventional Plywood</td>
<td>Contact</td>
<td>Nip rolled</td>
</tr>
</tbody>
</table>

*45 lb. cu. ft. density, industrial grade

**Methods**

Assembled pieces should meet the specification of KCMA (Kitchen Cabinetmakers Manufacturers Association) ANSI-161.2-1998 (revised) and “Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program” guidelines of the Architectural Woodwork Institute where applicable. Drill oversized holes for screws or bolts. Screws or bolts should be slightly countersunk into the face side of a laminate-clad substrate.

6. **Warranty**

7. **Maintenance**

8. **Technical Services**

For samples, literature, questions or technical assistance, please email us at info@aborite.com or contact our toll-free number, 1-800-996-0366 Monday through Friday, 8:30 am – 5:00 pm, EST.
**TECHNICAL DATA**

Arborite® Fire Rated Laminate

Types: 30PL, GPPL, B3PL and BKPL

Specification Form:

<table>
<thead>
<tr>
<th>Surface shall be Arborite® Fire-Rated Laminate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type: See Fire-Rated specific types under Product Description/Product Definition</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface</th>
<th>Color Number: ____________</th>
<th>Color Name: ____________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Code: ____________</td>
<td>Finish Name: ____________</td>
</tr>
<tr>
<td>Adhesive</td>
<td>Name: ____________</td>
<td>Type: ____________</td>
</tr>
<tr>
<td>Brand:</td>
<td>Wilsonart® Adhesive</td>
<td></td>
</tr>
</tbody>
</table>

Division de/of Wilsonart Canada ULC
385 Lafleur, Lasalle, Québec
Canada, H8R 3H7
www.arborite.com