Hygard® BR1000 sheet

Ballistic glazing - Level 2

Hygard® BR1000 ballistic grade sheet is a 1.000”, 4-ply polycarbonate laminate that meets the UL 752 Level 2 rating for .357 Magnum ballistic attack and HP White TP 0500 Level IV. Unlike glass-clad products, this all-polycarbonate laminate resists spalling and white-out after repeated high force and ballistic impacts, an advantage in maintaining visibility of a threat during an attack. All Hygard® products incorporate Makrolon® polycarbonate sheet produced for high optical quality in security glazing laminates. Exterior surfaces have a proprietary Makrolon® AR hardcoat that facilitates cleaning and resists marring, chemical attack, and graffiti. Hygard® BR1000 sheet has a seven (7) year Limited Product Warranty against coating failure, yellowing, and hazing. The terms of the warranty are available upon request.

Applications

Government and detention facilities, banks, specialty retailers, 24 hour convenience stores, cash transaction windows

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge / Tolerance</td>
<td>1.05 in ± 5%</td>
</tr>
<tr>
<td>Weight</td>
<td>6.5 lbs / sq ft</td>
</tr>
<tr>
<td>Shading Coefficient</td>
<td>0.85</td>
</tr>
<tr>
<td>U-Value</td>
<td>0.60</td>
</tr>
<tr>
<td>Light Transmission</td>
<td>72%</td>
</tr>
</tbody>
</table>

*Typical properties are not intended for specification purposes

**Typical Properties**

**Product Performance Ratings**

**BALLISTIC**

UL 752 Level 2 (357 Magnum jacketed lead soft point)

**FORCED ENTRY & CONTAINMENT**

ASTM F 1233.08 Class 5 Body Passage

ASTM F 1233.08 Class 2.4 Contraband Passage

ASTM F 1915.03 Grade 1

H.P. White TP 0500.03 Level IV Sequence 43

**AGENCY INFORMATION**

Combustibility Class CC1

Florida Building Code 2017, 6th Ed.

Miami-Dade NOA: NOA

UL File: BP6864

Hygard® BR1000

Sheet Construction

1/8” Makrolon® AR-1 Sheet

3/8” Makrolon® Sheet

Interlayer Bond
Glazing recommendations

• Structural security framing systems with equal or greater forced entry and/or ballistics ratings as the selected Hygard® laminate are recommended
• Hygard® laminate should be cut to allow for a minimum of one (1) inch edge engagement in the frame, with sufficient rabbet depth for material expansion (approx. 1/16”/ft.)
• Use wet or dry sealants/gaskets that are compatible with polycarbonate
• Remove protective masking after glazing operations are completed and before prolonged exposure to direct sunlight, moisture, or high temperature

Standard sheet size
48” x 60”, 48” x 72”, 38” x 78”, 38” x 96”, 48” x 96”, 60” x 72”, 60” x 96”

Product specification
Hygard® BR1000 polycarbonate laminate:
• Four-ply, clear Makrolon® polycarbonate sheet constructed as follows:
  – 1/8” Makrolon® AR-1 abrasion resistant surface
  – Polyurethane bonding interlayer
  – 3/8” Makrolon® polycarbonate sheet
  – Polyurethane bonding interlayer
  – 3/8” Makrolon® polycarbonate sheet
  – Polyurethane bonding interlayer