



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, heavy equipment glazing, specialty retailers, 24 hour convenience stores, cash transaction windows

Typical Properties*	
Property	Values
Gauge / Tolerance	1.05 in ± 5%
Weight	6.5 lbs / sq ft
Shading Coefficient	0.85
U-Value	0.60
Light Transmission	72%

*Typical properties are not intended for specification purposes

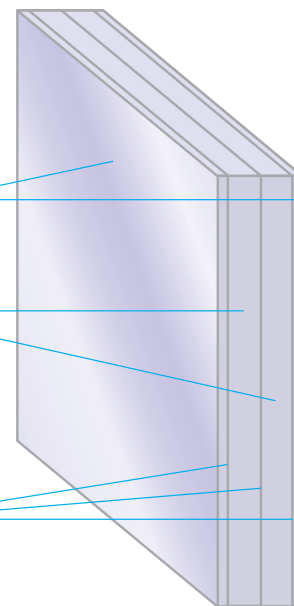
Product Performance Ratings
BALLISTIC UL 752 Level 2 (.357 Magnum jacketed lead soft point)
FORCED ENTRY & CONTAINMENT ASTM F 1233.08 Class 5 Body Passage ASTM F 1233.08 Class 2.4 Contraband Passage ASTM F 1915.03 Grade 1 H.P. White TP 0500.03 Level IV Sequence 43
AGENCY INFORMATION UL File: BP6864 Combustibility Class CC1 Miami-Dade NOA 12-0605.05

Hygard® BR1000 Sheet Construction

1/8" Makrolon® AR-1 Sheet

3/8" Makrolon® Sheet

Interlayer Bond



Hygard® BR1000 sheet

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
 - 1/8" Makrolon AR-1 abrasion resistant surface

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