

Product Data - Hygard Polycarbonate BR 1000

Ballistic Glazing – Level 2

Hygard BR1000 ballistic grade sheet is a 1.000", 4-ply polycarbonate laminate that conforms with UL 752 Level 2 rating for 0.357 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 TUFFAK polycarbonate sheet produced for high optical quality in security glazing laminates. Exterior surfaces have a proprietary TUFFAK AR hardcoat that facilitates cleaning and resists marring, chemical attack, and graffiti.

Includes 7-year Limited Product Warranty against coating failure, yellowing, and hazing

Applications

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

Typical Properties*

Property	Values
Gauge / tolerance	1.05 in $\pm$ 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

UL752Level 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

Miami-Dade NOA

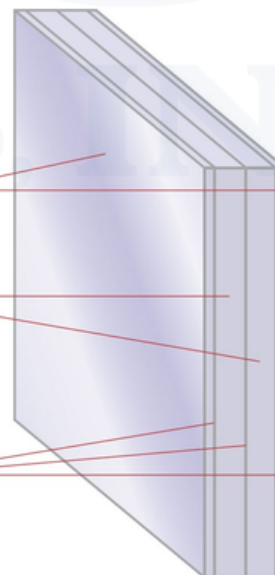
UL File: BP6864

Hygard BR1000 Sheet Construction

1/8" TUFFAK AR-1
sheet

3/8" TUFFAK
sheet

Interlayer Bond



These data are presented only as typical properties of the base resins which, to our best knowledge, are true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guaranty or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise. All risks of such use are assumed by the user. Furthermore, nothing contained herein shall be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing or future patents.

Product Data - Hygard Polycarbonate BR 1000



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 (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 TUFFAK polycarbonate sheet constructed as follows:
 - 1/8" TUFFAK AR-1 abrasion resistant surface
 - Polyurethane bonding interlayer
 - 3/8" TUFFAK polycarbonate sheet
 - Polyurethane bonding interlayer
 - 3/8" TUFFAK polycarbonate sheet
 - Polyurethane bonding interlayer
 - 1/8" TUFFAK AR-1 abrasion resistant surface

PLASTICS, INC.

These data are presented only as typical properties of the base resins which, to our best knowledge, are true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guaranty or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise. All risks of such use are assumed by the user. Furthermore, nothing contained herein shall be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing or future patents.