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**makrolon**<sup>®</sup>  
High-tech plastic from Bayer

# Bullet Resistant Glazing Product Data

## MAKROLON HYGARD<sup>®</sup> BR1250

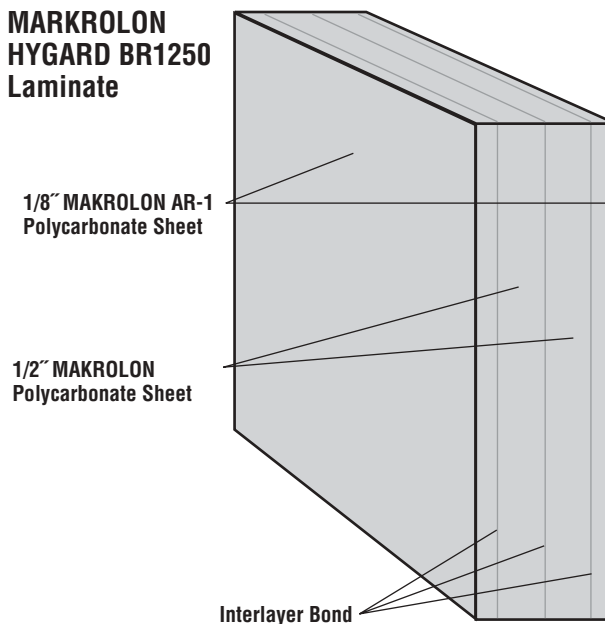
**MAKROLON HYGARD<sup>®</sup> BR1250** laminate is a four-ply MAKROLON polycarbonate sheet for use in security applications that require UL Listed Level III bullet-resisting glazing. MAKROLON HYGARD BR1250 laminate is hard coated with abrasion and UV resistant surfaces for extended service life in harsh environments.

### APPLICATIONS

MAKROLON HYGARD BR1250 laminate is used as containment and bullet-resistant glazing in a wide variety of higher level security applications. Installations include 24-hour convenience stores, specialty retailers, banks, governmental and detention facilities, as well as other cash transaction areas.

Typical Physical Properties	
Gauge/Tolerance	1.30 ± 5%
Weight	8.1 lbs./s.f.
Shading Coefficient	.81
% Light Transmittance	67% (clear)
Colors Custom Colors on request	Standard: Clear
Sheet Sizes	Standard: 38" x 96"    48" x 60" 48" x 96"    48" x 72" 60" x 96" Custom Sizes on request

### MARKROLON HYGARD BR1250 Laminate



### FORCED ENTRY, BALLISTICS RATINGS

H.P. WHITE TP0500.01 Level V  
H.P. WHITE TP0500.01 Level C Ballistics (.44 magnum)  
ASTM F 1233 Class V Step 38 Ballistics (.44 magnum)  
UL752 Level III SPSA .44 Magnum

*Sheffield Plastics Inc. will not be responsible for the use of this information relative to actual application. Users must make their own determination of its suitability for their specific application. No warranty is made for the fitness of any product, and nothing herein waives any of the seller's conditions of sale.*

# Product Data

## MAKROLON HYGARD® BR1250

### GLAZING INFORMATION

- Use of structural security framing systems with equal or greater forced entry and/or ballistics ratings as the selected MAKROLON HYGARD laminate is recommended.
- Size MAKROLON HYGARD laminates to allow for a minimum of 1" 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.

### CLEANING INSTRUCTIONS

- Rinse with clean water to remove abrasive dust and dirt.
- Wash with soap or mild detergent using a sponge or soft cloth. Do not scrub.
- Rinse once more. Dry with a soft cloth or chamois to prevent water spots.
- To remove labels, stickers, or grease, rub gently with a cloth wetted thoroughly in VM & P naphtha or isopropyl alcohol. Wash and rinse. Do not use razor blades, scrapers, or squeegees.

### Product Specification

#### MAKROLON HYGARD BR1250 laminate:

Four-ply, clear MAKROLON polycarbonate sheet constructed as follows:

- 1/8" MAKROLON polycarbonate sheet with high AR abrasion-resistant surface
- Polyurethane bonding interlayer
- 1/2" MAKROLON polycarbonate sheet
- Polyurethane bonding interlayer
- 1/2" MAKROLON polycarbonate sheet
- Polyurethane bonding interlayer
- 1/8" MAKROLON polycarbonate sheet with high AR abrasion-resistant surface

Material shall have a flexural strength of at least 13,500 psi per ASTM D-790; and shall have AR (high performance abrasion-resistant) surfaces for enhanced service life and resistance to marring. Material shall exhibit a self ignition temperature of 1077°F and a flash ignition temperature of 872°F (ASTM D-1929), and conform with ICBO & BOCA Model Building Codes as a CC-1 rated Approved Light Transmitting Plastic.

**For additional information please call the Sheffield Plastics Customer Service at: 800-254-1707.**



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