

Makrolon Hygard CG500 Product Data



MAKROLON HYGARD® CG500 laminate is a three-ply MAKROLON polycarbonate sheet for specialty vehicle glazing and architectural security glazing applications. MAKROLON HYGARD CG500 laminate features abrasion and UV resistant hard coated surfaces for extended service life in harsh environments.

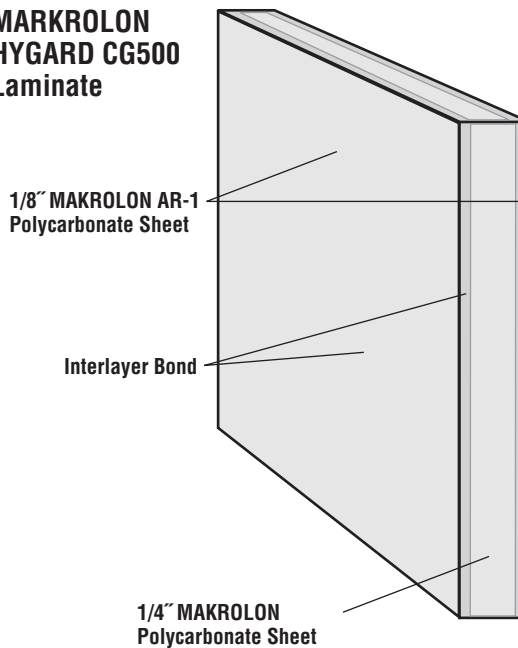
APPLICATIONS

MAKROLON HYGARD CG500 laminate is used primarily in detention facility and jail glazing to meet specific requirements for protection against forced entry/ egress into or from controlled areas. CG500 is also used as cab glazing in off-road heavy equipment to protect operators from debris and projectiles.

Typical Physical Properties

Gauge/Tolerance	.530 ± 5%
Weight	3.3 lbs./s.f.
Shading Coefficient	.90
% Light Transmittance	83% (clear)
Colors	Standard: Clear Custom Colors on request
Sheet Sizes	Standard: 38" x 96" 48" x 96" 60" x 96" Custom Sizes on request

MARKROLON HYGARD CG500 Laminate



FORCED ENTRY, BALLISTICS RATINGS

H.P. WHITE TP 0500.01 Level II Step 12
 H.P. WHITE TP 0500.01 Level A Ballistics (.38 Special)
 ASTM F 1233 Class III Step 15

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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 CG500 laminate:

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

- 1/8" MAKROLON polycarbonate sheet with high AR abrasion-resistant surface
- Polyurethane bonding interlayer
- 1/4" 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.