

HYGARD® CG500 POLYCARBONATE SHEET

CONTAINMENT GRADE

Hygard CG500 containment grade sheet is a 0.500", 3-ply polycarbonate laminate that is tested to ASTM F 1233 Class 1.5 for contraband passage and Class 3.2 for body passage. Hygard® CG500 also tested to H.P. White TP 0500 Level A (.38 Special) and ASTM F1233, Class HG1 (.38 Special) for ballistics. 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, and graffiti attack. Hygard CG500 sheet has a seven (7) year Limited Product Warranty against coating failure, delamination, yellowing, and hazing. The terms of the warranty are available upon request.

APPLICATIONS

Jails, detention centers, psychiatric hospitals, reception areas, convenience stores, check cashing centers or facilities

DIN EN ISO 23125 2015-04

Machine Tools - Safety - Turning Machines

		Class
HYGARD CG375	9.6 mm	C ₁
HYGARD CG500	13.2 mm	C ₃
HYGARD CG750	19.5 mm	C ₃

TYPICAL PROPERTIES*

Property	Values
Gauge / Tolerance	0.522 in ± 5%
Weight	3.3 lbs / sq ft
Shading Coefficient	0.90
U-Value	0.74
Light Transmission	83%

*Typical properties are not intended for specification purposes

PRODUCT PERFORMANCE RATINGS

BALLISTIC

H.P. White TP 0500, Level A
 ASTM F 1233, Class HG1 .38 Special LRN
 FORCED ENTRY & CONTAINMENT
 ASTM F 1233 Class 1.5 (contraband passage) and Class 3.2 (body passage)
 ASTM F 1915 Grade 1
 H.P. White TP 0500 Level 1 Sequence 15

AGENCY INFORMATION

Combustibility Class CC1
 Florida Building Code 2017
 2018 International Building Code (ICC ESR 2728)
 Miami-Dade NOA: NOA

Hygard CG500 Sheet Construction

1/8" TUFFAK AR-1 sheet

1/4" TUFFAK sheet

Bonding Interlayer



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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
- » See glazing details on sheets.covestro.com

Product specification

Hygard CG500 polycarbonate laminate:

- » Three-ply, clear TUFFAK polycarbonate sheet constructed as follows:
 - 1/8" TUFFAK AR-1 abrasion resistant surface
 - Polyurethane bonding interlayer
 - 1/4" TUFFAK polycarbonate sheet
 - Polyurethane bonding interlayer
 - 1/8" TUFFAK AR-1 abrasion resistant surface

Compatible cleaners

The following cleaning agents are compatible with TUFFAK polycarbonate sheet products when used according to the manufacturer's recommendations:

- » Top Job
- » Joy®
- » Palmolive Liquid®
- » Windex® Ammonia free

Top Job and Joy are registered trademarks of Proctor & Gamble, Palmolive is a registered trademark of Colgate Palmolive, Windex is a registered trademark of Drackett Products

General cleaning instructions:

- » Thoroughly pre-rinse with warm water to loosen and wash away surface residue, grit and grime.
- » Using a soft microfiber cloth or moist non-abrasive sponge, gently wash with a mild diluted soap or detergent.
- » Rinse thoroughly with lukewarm, clean water. To prevent water spots, thoroughly dry the glazing with a dry soft cloth.

TECH TIP:

The edges of coated polycarbonate sheet are not protected with an abrasion and chemical resistant hard coating. Do not allow cleaning solutions and solvents to pool along the edges for any length of time. Always rinse edges thoroughly with generous amounts of lukewarm clean water.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.

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