

## Hygard® CG375 polycarbonate sheet

### CONTAINMENT GRADE

Hygard CG375 containment grade sheet is a 0.375", 2-ply polycarbonate laminate that is tested to ASTM F 1915, ASTM F 1233 and H.P. White TP 0500. Unlike glass-clad products, this all-polycarbonate laminate resists spalling and white-out after repeated high force 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. Hygard CG375 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

### Typical Properties\*

Property	Values
Gauge / Tolerance	0.390 in ± 5%
Weight	2.4 lbs / sq ft
Shading Coefficient	0.92
U-Value	0.84
Light Transmission	88%

\*Typical properties are not intended for specification purposes

### Product Performance Ratings

#### BALLISTIC

H.P. White TP 0500.03, Level A  
 ASTM F 1233, Class HG1 .38 Special LRN  
 FORCED ENTRY & CONTAINMENT  
 ASTM F 1233 Class 1.5 Contraband Passage  
 ASTM F 1233 Class 2.8 Body Passage  
 ASTM F 1915 Grade 3  
 H.P. White TP 0500 Level 1 Sequence 15

#### AGENCY INFORMATION

Combustibility Class CC1  
 Florida Building Code 2017, 6th Ed.  
 Miami-Dade NOA: NOA

### DIN EN ISO 23125 2015-04

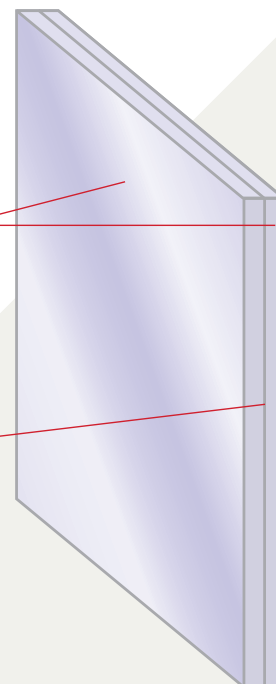
#### Machine Tools - Safety - Turning Machines

		Class
HYGARD CG375	9.6 mm	C <sub>1</sub>
HYGARD CG500	13.2 mm	C <sub>3</sub>
HYGARD CG750	19.5 mm	C <sub>3</sub>

### Hygard CG375 Sheet Construction

3/16" TUFFAK AR-1 sheet

Bonding Interlayer



## 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 <sub>1</sub>
HYGARD CG500	13.2 mm	C <sub>3</sub>
HYGARD CG750	19.5 mm	C <sub>3</sub>

### 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 CCI  
 Florida Building Code 2017, 6th Ed.  
 Miami-Dade NOA: NOA

### Hygard CG500 Sheet Construction

1/8" TUFFAK AR-1 sheet

1/4" TUFFAK sheet

Bonding Interlayer



## Hygard® CG750 polycarbonate sheet

### CONTAINMENT GRADE

Hygard CG750 containment grade sheet is a 0.750" thick, 3-ply polycarbonate laminate that is tested to ASTM F 1233 Class 2.4 and H.P. White TP 0500 Level B Ballistics (9 mm Luger). 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. Hygard CG750 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

Security doors, windows, 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 <sub>1</sub>
HYGARD CG500	13.2 mm	C <sub>3</sub>
HYGARD CG750	19.5 mm	C <sub>3</sub>

### Typical Properties\*

Property	Values
Gauge / Tolerance	0.780 in +/- 5%
Weight	4.9 lbs / sq ft
Shading Coefficient**	0.87
U-Value**	summer/winter 0.63/0.68 Btu/hr-ft <sup>2</sup> °F
Light Transmission	77%

\*Typical properties are not intended for specification purposes

\*\*1989 ASHRAE conditions

### Product Performance Ratings

#### BALLISTIC

H.P. White TP 0500.03, Level B, 9 mm Luger  
 FORCED ENTRY & CONTAINMENT  
 ASTM F 1233 Class 2.4 (contraband passage) and Class 3.5 (body passage)  
 ASTM F 1915 Grade 1  
 H.P. White TP 0500 Level II Sequence 26

#### AGENCY INFORMATION

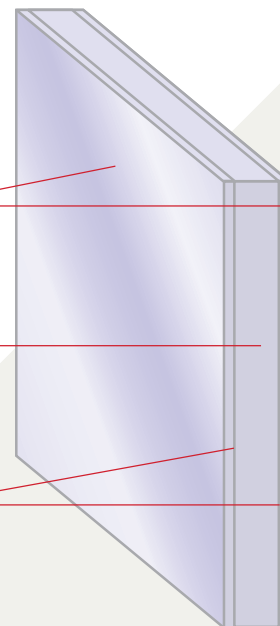
Combustibility Class CC1  
 Florida Building Code 2017, 6th Ed.  
 Miami-Dade NOA: NOA

### Hygard CG750 Sheet Construction

1/8" TUFFAK AR-1 sheet

1/2" TUFFAK sheet

Bonding Interlayer



# Hygard CG polycarbonate 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
- » See glazing details on sheets.covestro.com

## Product specification

Hygard CG375 polycarbonate laminate:

- » Two-ply, clear TUFFAK polycarbonate sheet constructed as follows:
  - 3/16" TUFFAK AR-1 abrasion resistant surface
  - Polyurethane bonding interlayer
  - 3/16" TUFFAK AR-1 abrasion resistant surface

## 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

## Product specification

Hygard CG750 polycarbonate laminate:

- » Three-ply, clear TUFFAK polycarbonate sheet constructed as follows:
  - 1/8" TUFFAK AR-1 abrasion resistant surface
  - Polyurethane bonding interlayer
  - 1/2" 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 Procter & Gamble, Palmolive is a registered trademark of Colgate Palmolive, Windex is a registered trademark of Dracett 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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