

# AZCARB



## AZCARB LG Lamination Grade Abrasion Resistant Polycarbonate Sheet

**AZCARB LG** sheet is a transparent 1-side thermally cured hard coated lamination grade offering the highest optical properties for lamination with PC, PMMA or Glass in asymmetrical bullet resistant security glazing panels. Thickness can be specified to match specific levels of threat.

For cleaning instructions consult guidelines. This coating significantly increases abrasion resistance and surface hardness complimenting polycarbonate's inherent excellent impact strength & optical clarity. In addition, this coating enhances both weatherability and chemical resistance. Key applications includes spill shield in lamination and High Optic lenses.

- Abrasion resistant
- Graffiti resistant
- Weatherable /UV protected
- Improved Chemical Resistance
- Available 1 side coated
- Thicknesses available for .060" to .236"
- Max Sheet Size 97" x 128"
- Stock sheet sizes: 48" x 96", 60" x 96", 72" x 96"
- Run to size and oversize available on request
- Easily Fabricated
- Limited ten (10) year warranty



## AZCARB LG Lamination Grade Abrasion Resistant Polycarbonate Sheet

### TYPICAL STANDARD PROPERTIES<sup>1</sup>

PROPERTY	ASTM METHOD	UNITS	AZCARB LG (COATED) SHEET	AZCARB GP (UNCOATED) SHEET
Specific Gravity	D-792	N/A	1.2	1.2
Total White Light Transmittance <sup>2</sup>	D-1003	%	89	87
Haze	D-1003	%	<1.0	1
Notched Izod <sup>2</sup>	D-256 notch	ft.- lbs./in. <sup>2</sup>	16	16
Tensile Impact <sup>2</sup>	D-1822	ft.- lbs./in. <sup>2</sup>	170	170
Charpy Impact	D-256 notch	ft.- lbs./ 1/2" x 1" section	NB	NB
Tensile Strength	D-638	psi	8400	8400
Tensile Strength	D-638	psi	9500	9500
Tensile	D-638	%	100	100
Tensile	D-638	psi	3.4 x 10 <sup>5</sup>	3.4 x 10 <sup>5</sup>
Flexural Strength	D-790	psi	13500	13500
Flexural Strength	D-790	psi	NB	NB
Flexural Strength	D-790	in	0.07	0.07
Flexural Strength	D-790	psi	0.10	0.10
Flexural Strength	D-790	psi	3.4 x 10 <sup>5</sup>	3.4 x 10 <sup>5</sup>
Shear Strength	D-732	psi	5800	5800
Rockwell Hardness	D-785	M scale	70	70
Winter Absorption (24 hrs.) <sup>2</sup>	D-570	%	0.15	0.15
DTUFL at 264 psi	D-648	°C	135	135

<sup>1</sup> Values reported are averages and should not be used for specification purposes. <sup>2</sup> Test performed on 0.118" (3mm) thick specimens; all other test specimens 0.236" (6mm) thick. Note: NB=no break

### ABRASION RESISTANCE

PROPERTY	TEST METHOD	AZCARB LG (COATED) SHEET	AZCARB GP (UNCOATED) SHEET
100 rev, % haze		<2.0	40
Steel Wool Rub Resistance	*		
3 (coarse)		Moderate	Heavy

\*Ratings based on visual observation after 5 seconds of vigorous hand rubbing with each grade of steel wool. Ratings: none, trace, light, moderate, heavy.

### CHEMICAL RESISTANCE TEST METHOD ASTM D-1308

CHEMICAL	AZCARB LG (COATED) SHEET	AZ CARB GP (UNCOATED) SHEET
Methylene Chloride (MDC)	4 hrs. (W,C)	1 min. (D,W)
Toluene	4 hrs. (W,C)	1 min. (D,W)
Kerosene	1 week	1 week
Acetone	48 hrs. (C)	1 min. (D,W)
Oxalic Acid	1 week	1 week
Hydrochloric Acid (conc.)	1 week	1 week (S,W)
Nitric Acid (conc.)	1 week (Y,C)	1 week (Y)
Sodium Hydroxide (sat.)	1 week (S,W)	48 hrs. (W)
Ammonium Hydroxide (conc.)	1 week	1 week

Note: Teflon washer placed on surface, filled with chemical indicated and covered with a watch glass. Samples checked within 1 minute, 4 hours, 16 hours and then every 24 hours thereafter, for a total of 1 week. Code: S = slightly, W = whitened, C = crazed, Y = yellowed, D = dissolved.

AZCARB LG Polycarbonate Sheet is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood and paper. For building uses, check code approvals. Impact resistance is a factor of thickness. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives. The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, AZPolymers expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.

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