Classification: Internal Use

POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ MR10 SHEET

DESCRIPTION

Mar/UV-resistant LEXAN™ MARGARD™ MR10 sheet combines the impact strength of LEXAN polycarbonate sheet with a proprietary abrasion/UV resistant surface that approaches glass in performance. LEXAN MARGARD MR10 Sheet with MARGARD™ coating backed by a ten-year limited warranty against yellowing, abrasion resistance, breakage, loss of light transmission, and coating failure. LEXAN MARGARD MR10 sheet's unique coating is graffiti resistant enabling restoration to a like-new condition. In addition, LEXAN MARGARD MR10 sheet offers improved resistance to weathering as well as forced-entry protection. It is an excellent candidate for use in stores, public buildings, schools, bus shelters and other high traffic areas. LEXAN MARGARD MR10 sheet is for transparent applications only. Because of its high mar-resistant surface, paint, adhesives, and other materials will not adhere to its surface. The coating is applied to both sides, therefore helps eliminate second-surface decoration. Also due to its mar-resistant coating, LEXAN MARGARD MR10 sheet cannot be cold-formed.

TYPICAL PROPERTY VALUES◆

PROPERTY	TEST METHOD	UNITS	VALUE
Physical			
Specific Gravity (color dependent)	ASTM D792	-	1.20
Light Transmission (Average), 1/8" Thick	ASTM D1003	%	88
Chemical Resistance	ANSI Z26.1	-	Passes#
Mechanical			
Tensile Strength, Ultimate	ASTM D638	psi	9,500
Flexural Strength	ASTM D790	psi	13,500
Flexural Endurance @ 1,800 Cycles/Min,			
73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D695	psi	12,500
Modulus of Elasticity	ASTM D638	psi	345,000
Drop Ball Impact Strength‡	POLYVANTIS Test	ft-lbs	
@ 73°F			>200
@ 32°F			>200
@ 0°F			>200
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x10^{-5}
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
Flammability			
Horizontal Burn (Flame Spread)	ASTM D635	in	
AEB			<1
Ignition Temperature	ASTM D1929	°F	
Flash			873
Self			1,076

♦ These typical values are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS representative.

‡ 5-lb steel ball dropped from a height of 40 feet

£ Request details of limited ten-year warranty plus cleaning and maintenance instructions.

Gasoline and kerosene - no tackiness, crazing or loss of transparency for a minimum of 48 hours.

UL File Number: E539157

ABRASION RESISTANCE COMPARISON

LEXAN™ MR10 sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the abrasion resistance chart.

		% Haze		
	Test Method	Uncoated Polycarbonate	LEXAN™ MARGARD™ MR10 Sheet	Glass
Taber Abrasion 100 Cycles CS 10F	ASTM D 1044 Z26.1	35.0	1-3	0.5

‡ The Taber Abrader test measures the percent of change in haze that results from the grinding action of two abrasive impregnated wheels on the test samples. A constant load of 500 grams is maintained as the samples rotate on a turntable for a predetermined number of revolutions.

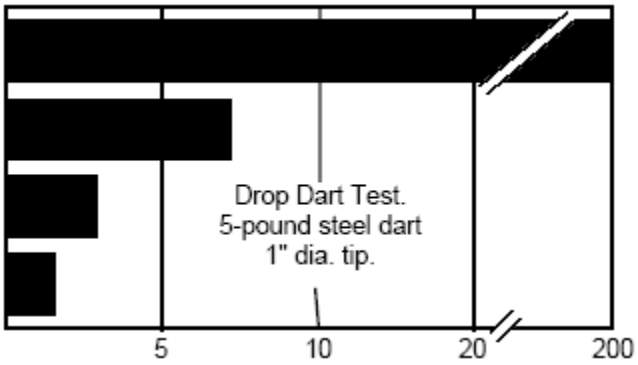
IMPACT RESISTANCE

¼" LEXAN™ MR10™ sheet

¼" Acrylic

¼" Tempered Glass

¼" Laminated Glass



Measured in foot-pounds

CODE COMPLIANCE

LEXAN™ MR10™ sheet meets the requirements of all major model building codes

• Model Building Code Organizations	The Approved Light Transmitting Plastics requirements set by the three major Model Building Code organizations (BOCA, ICBO, and SBCCI) and Dade County. LEXAN MR10 sheet meets the highest rating—Class CC1 Approved Plastic.
• Underwriters Laboratories	LEXAN MR10 sheet is listed as a Burglary-Resisting Glazing Material according to UL Standard 972.
• CPSC: 16 CFR 1201, I, II	LEXAN MR10 sheet complies with the Consumer Product Safety Commission's Safety Standard for architectural glazing materials for both Category I and Category II applications.

POLYVANTIS

Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

polyvantis.com

LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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