POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ MR5T SHEET

DESCRIPTION

Mar and UV-resistant LEXAN™ MARGARD™ MR5T Sheet combines the impact strength of Lexan polycarbonate sheet with an abrasion and UV resistant surface that approaches glass in performance. LEXAN™ MARGARD™ MR5T Sheet with MARGARD™ coating is backed by a five-year limited written warranty against yellowing, abrasion resistance, breakage, loss of light transmission, and coating failure.1) LEXAN™ MARGARD™ MR5T Sheet is a great candidate for transportation and glazing applications requiring improved Taber. Our coating is graffiti-resistant enabling restoration to a like-new condition. Due to its mar-resistant coating, LEXAN™ MARGARD™ MR5T sheet cannot be cold-formed.

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
Physical			
Specific Gravity	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	260
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 Innovative Plastics' representative.

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

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

UL File Number: E539157

ABRASION RESISTANCE COMPARISON

LEXAN™ MARGARD™ MR5T Sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the abrasion resistance chart.

		% Haze		
	Test Method	**Uncoated Polycarbonate**	**LEXAN™ MARGARD™ MR5T Sheet**	**Glass**
Taber Abrasion 100 Cycles CS 10F	ASTM D 1044 Z26.1	35.0	1-3	0.5
At 500 Cycles	ASTM D1044	35.0	<7	0.90

‡ 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.

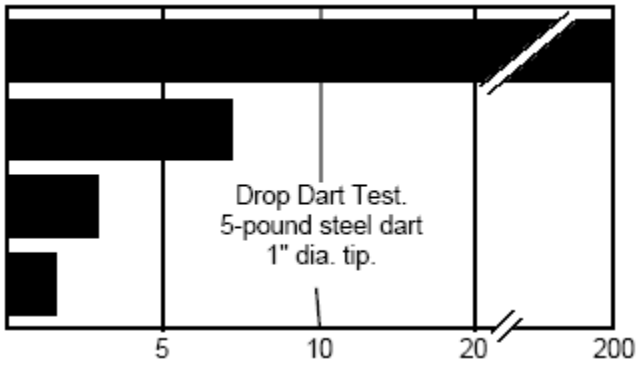
IMPACT RESISTANCE

¼" LEXAN MR5T

¼" Acrylic

¼" Tempered

¼" Laminated Glass



Measured in foot-

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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