POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ MRT SHEET

DESCRIPTION

LEXAN™ MARGARD™ MRT sheet is a transparent, high impact LEXAN polycarbonate sheet with a proprietary abrasion-resistant surface. LEXAN MARGARD MRT sheet meets the performance requirements of ANSI Z26.1, required by the Department of Transportation per FMVSS 205, and UMTA guidelines for flammability for windows and lighting lenses.

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

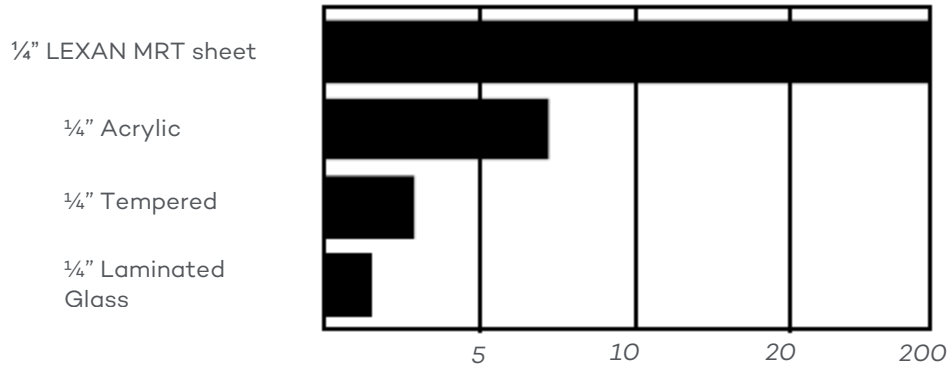
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ABRASION RESISTANCE COMPARISON

		% HAZE		
	Test Method	Uncoated Polycarbonate	LEXAN MRT 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 ¶



Measured in foot-pounds

¶) Drop Dart Test with a 5-lb steel dart and a 1" diameter tip.

OPTICAL

Clear 112

	Gauge	Test Method	Typical Value
Light Transmission	0.118	ASTM D1003	88%
Light Transmission	0.236	ASTM D1003	85%
Light Transmission	0.500	ASTM D1003	80%

Green 31035

	Gauge	Test Method	Typical Value
Light Transmission	All	ASTM D1003	72%

Grey 713

	Gauge	Test Method	Typical Value
Light Transmission	All	ASTM D1003	50%

Bronze 5109

	Gauge	Test Method	Typical Value
Light Transmission	All	ASTM D1003	50%

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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