

Lexan* MR51 Sheet

Product Datasheet

Description

One Side Flow Coated Mar/UV-resistant Lexan* MR51 sheet combines the impact strength of Lexan polycarbonate sheet with an abrasion/UV resistant surface that approaches glass in performance. Lexan MR51 Sheet with Margard* coating is backed by a five-year limited warranty against yellowing, abrasion resistance, breakage, loss of light transmission, and coating failure.¹⁾

Lexan MR51 One Side Hard Coated Sheet is a great candidate for Lamination Applications. Our unique coating is graffiti-resistant enabling restoration to a like-new condition. In addition, Lexan MR51 sheet offers improved resistance to weathering as well as forced-entry protection. It is well-suited for use in stores, public buildings, schools, bus shelters and other high traffic areas. Lexan MR51 sheet is for transparent applications only. Because of its high mar-resistant surface, paint, adhesives and other materials will not adhere to its surface. Due to its mar-resistant coating, Lexan MR51 sheet cannot be cold-formed. For Transportation Applications please order MR51T with ripple orientation.

Typical Property Values ♦

Property	ASTM 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 ²⁾
Mechanical			
Tensile Strength, Ultimate	ASTM D638	psi	9,500
Flexural Strength	ASTM D 790	psi	13,500
Flexural Endurance @ 1,800 Cycles/Min, 73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D696	psi	12,500
Modulus of Elasticity	ASTM D638	Psi	340,000
Drop Ball Impact Strength (5-lb steel ball dropped from a height of 40 feet)	GE Test	ft-lbs	>200
@ 73°F			>200
@ 32°F			>200
@ 0°F			>200
Thermal			
Coefficient of Thermal Expansion	ASTM D696	In/in°F	3.75 x 10 ⁻⁵
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
Flammability			
Horizontal Burn (Flame Spread), AEB	ASTM D635	In	<1
Ignition Temperature	ASTM D 1929	°F	
Flash			873
Self			1,076

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

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

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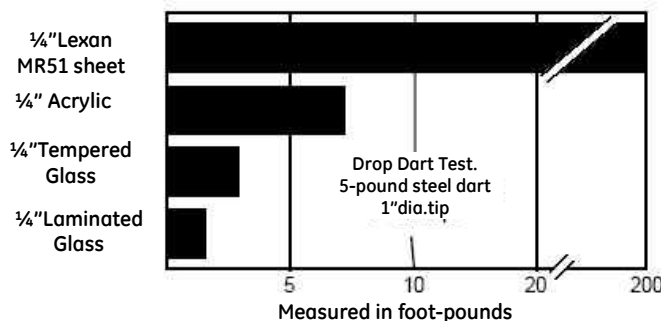
Abrasion resistance

Lexan* MR101 sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the abrasion resistance chart.

	% Haze			
	Test Method	Uncoated Polycarbonate	Lexan* MR51 Sheet	Glass
Taber Abrasion 100 Cycles CS 10F	ASTM D1044 Z26.1	35.0	1-4	0.5

The taber abrasion 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



Code Compliance

Lexan MR5-1 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 MR51 sheet meets the highest rating—Class CC1 Approved Plastic.
- Underwriters Laboratories** Lexan MR51 sheet is listed as a Burglary-Resisting Glazing Material according to UL Standard 972.
- CPSC: 16 CFR 1201, I, II** Lexan MR51 sheet complies with the Consumer Product Safety Commission's Safety Standard for architectural glazing materials for both Category I and Category II applications.

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