



GE Structured Products

LEXAN® MR10 SHEET

Product Data Sheet

DESCRIPTION

Mar/U.V.-resistant LEXAN® MR10 sheet combines the impact strength of LEXAN polycarbonate sheet with a proprietary abrasion/UV-resistant surface that approaches glass in performance. LEXAN MR10 Sheet with MARGARD® II coating is the only polycarbonate glazing material backed by a ten-year limited warranty against yellowing, abrasion resistance, breakage, loss of light transmission, and coating failure.*

LEXAN MR10 sheet's unique coating is graffiti-resistant enabling restoration to a like-new condition. In addition, LEXAN MR10 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 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 MR10 sheet cannot be cold-formed. The sheet is intended for flat applications only.

ABRASION RESISTANCE

Tested for abrasion resistance, LEXAN MR10 sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the Abrasion Resistance Comparison chart herein.

TYPICAL PROPERTY VALUES

Property	Test Method	Units	Value
PHYSICAL			
Specific Gravity (Color Dependent)	ASTM D792	--	1.2
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	340,000
Drop Ball Impact Strength (5-lb steel ball dropped from a height of 40 feet)	GE Test	ft-lbs	
@ 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 D1929	°F	
Flash			873
Self			1,076

ABRASION RESISTANCE COMPARISON

	% Haze			
	Test Method	Uncoated Polycarbonate	LEXAN MR10 Sheet	Glass
Taber Abrasion 100 Cycles CS10F	ASTM D1044 Z26.1	35.0	1-4	0.5

*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.

***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.

Lexan

IMPACT RESISTANCE

LEXAN MR10 sheet has up to 250 times the impact strength of glass and 30 times that of acrylic.

CODE COMPLIANCE

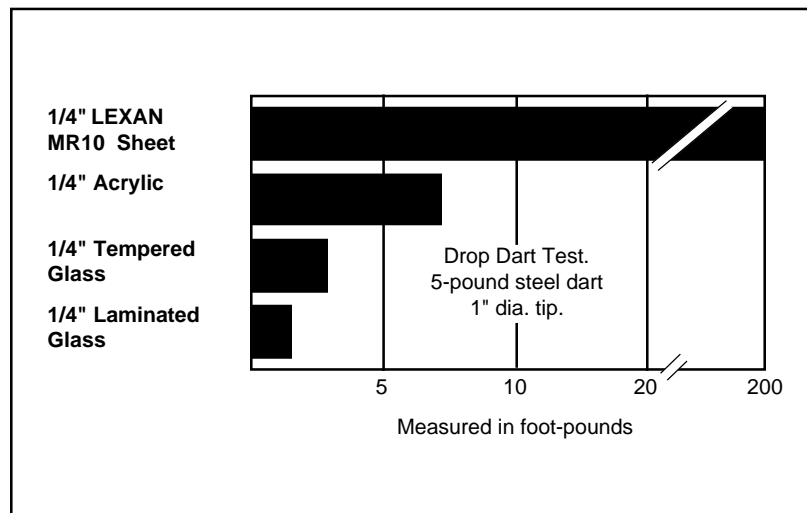
LEXAN MR10 sheet meets the requirements of all major model building codes.

- **Model Building Code Organizations**—LEXAN MR10 sheet meets 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 by Underwriters Laboratories 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.

**For more information
call: (800) 451-3147.**

Inasmuch as General Electric Company has no control over the use to which others may put this material, it does not guarantee that the same results as those described herein will be obtained. Nor does General Electric Company guarantee the effectiveness or safety of any possible or suggested design for articles of manufacture as illustrated herein by any photographs, technical drawings and the like. Each user of the material or design or both should make his own tests to determine the suitability of the material or any material for the design, as well as the suitability of the material or design or both for his own particular use. Statements concerning possible or suggested uses of the materials or designs described herein are not to be construed as constituting a license under any General Electric patent covering such use or as recommendations for use of such materials or designs in the infringement of any patent.

IMPACT RESISTANCE



GE Structured Products

General Electric Company
One Plastics Avenue, Pittsfield, MA 01201-3697