POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ MRX SHEET

DESCRIPTION

LEXAN™ MARGARD™ MRX sheet is a transparent UV and mar resistant glazing material for flat applications only. The intrinsic properties of LEXAN polycarbonate combined with its dual hard coated surface provide: high impact strength and forced entry protection, graffiti resistance, enhanced chemical resistance, good all weather performance, unique ten (10) year warranty against breakage and five (5) year limited warranty against yellowing, loss of light transmission and coating failure. Typical applications can be sound-barriers, separations screens and flat glazing systems needing impact resistance combined with chemical and abrasion resistance.

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm³	1.20
Water absorption, 50% RH, 23 °C	ISO 62	%	0.15
Water absorption, saturation, 23°C	ISO 62	%	0.35
MECHANICAL			
Yield stress 50 mm/min	ISO 527	MPa	>60
Yield strain 50 mm/min	ISO 527	%	6
Nominal strain at break 50 mm/min	ISO 527	%	>100
Tensile modulus 1 mm/min	ISO 527	MPa	2300
Flexural strength 2 mm/min	ISO 178	MPa	90
Flexural modulus 2 mm/min	ISO 178	MPa	2300
Taber haze - 500 cycles, 500 gram, CS-10F	ASTM D1044	%	<10
THERMAL			
Vicat softening temperature, rate B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8	ISO 75-2	°C	127
Thermal conductivity	ISO 8302	W/m.°C	0.2
Coefficient of linear thermal expansion, 23-55°C	ISO 11359-2	1/°C	$7x10^{-5}$
Ball pressure test 125 ±2°C	IEC 60695-10-2	-	Pass
ELECTRICAL			
Volume resistivity	IEC 60093	Ohm.cm	$>10^{15}$
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18
OPTICAL			
Light transmission 3 mm	ASTM D1003	%	91
Light transmission 6 mm	ASTM D1003	%	89

◆ Some of the property values have been derived from LEXAN™ resin data for the material used to produce this sheet product.

FLAT APPLICATIONS

Due to its mar-resistant coating, LEXAN™ MARGARD™ MRX sheet cannot be formed. Cold-line bending may result in cracks in the sheet and coating. The sheet is intended for flat applications only.

CHEMICAL RESISTANCE

LEXAN™ MARGARD™ MRX sheet has high resistance at the coated side to many chemicals. In applications where it will come into contact with aggressive chemicals, specific (application related) testing of the material is strongly recommended.

PRODUCT AVAILABILITY #)

GAUGE (MM)	WIDTH (MM)	LENGTH (MM)	COLOR
3.00	2000	3000	112
6.00	2000	3000	112

From 3.00mm up to and including 15.00mm, other dimensions upon request and are subject to minimum order quantities.

INSTALLATION

For some applications the ripple orientation may play an important role while installing the LEXAN MARGARD MRX sheet.

ASSEMBLING

Parts made from LEXAN MARGARD MRX sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these techniques can cause environmental stress cracking, please ensure that you have carried out tests regarding its suitability for your applications or end use.

CLEANING

- Never scrape the sheet with squeegees, razorblades or other sharp instruments.
- Do not clean LEXAN MARGARD MRX sheet products under sunny and/or hot environments.
- For removal of paints, marker pen inks, lipstick and graffiti etc. on the coated side, we recommend to use Butyl Cellusolve and products mentioned in the LEXAN solid sheet processing manual. Do not use abrasive or alkaline cleaners.
- To remove labels, stickers etc. the use of kerosene, naphta or white spirit is generally effective.
- After having cleaned the LEXAN MARGARD MRX sheet a final wash should be made, using a mild soap solution and finishing with a thorough rinsing with cold water.

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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