

LEXAN™ MARGARD™ MRX1 SHEET

PRODUCT DATASHEET

DESCRIPTION

High abrasion resistant, LEXAN™ MARGARD™ MRX1 sheet is a one-side hard coated polycarbonate sheet, used for flat applications only, offering excellent abrasion resistance at the coated side, excellent dimensional stability, impact resistance, optical clarity. Typical applications can be flat glazing systems that are exposed on just one side, needing impact resistance combined with chemical and abrasion resistance. Product cannot be used for cold line bending.

TYPICAL PROPERTY VALUES

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm ³	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 - 100 cycles, 500 gram, CS-10F	ASTM D1044	%	2 – 4
Taber haze - 500 cycles, 500 gram, CS-10F	ASTM D1044	%	6 – 9
THERMAL			
Vicat softening temperature, rate B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8 MPa, flat	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	ASTMD1003	%	90
Light transmission 4 mm	ASTMD1003	%	89
Light transmission 5 mm	ASTMD1003	%	89
Light transmission 6 mm	ASTMD1003	%	88
Light transmission 8 mm	ASTMD1003	%	87
Light transmission 9.5 mm	ASTMD1003	%	86
Light transmission 12 mm	ASTMD1003	%	84
Light transmission 15 mm	ASTMD1003	%	82

◆ Some of the property values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC, Specialty Film & Sheet representative.

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CHEMICAL RESISTANCE

LEXAN™ MARGARD™ MRX1 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.

ASSEMBLING

Parts made from LEXAN MARGARD MRX1 sheet can be assembled with plastics, metals, glass, rubber and other materials using many types of adhesive bonding, welding, lamination 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.

PRODUCT AVAILABILITY ^{##)}

GAUGE (MM)	WIDTH (MM)	LENGTH (MM)	COLOR
3.00	2000	3000	112
4.00	2000	3000	112
6.00	2000	3000	112
8.00	2000	3000	112
9.50	2000	3000	112
12.0	2000	3000	112
15.0	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 MRX1 sheet.

CLEANING

- Never scrape the sheet with squeegees, razorblades or other sharp instruments.
- Do not clean LEXAN MARGARD MRX1 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. on the coated side the use of kerosene, naphta or white spirit is generally effective.
- After having cleaned the LEXAN MARGARD MRX1 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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