

LEXAN™ MARGARD™ MRA3 SHEET

PRODUCT DATASHEET

DESCRIPTION

High abrasion resistant, non weatherable sheet. LEXAN™ MARGARD™ MRA3 sheet is a double-sided coated polycarbonate sheet offering excellent abrasion resistance, excellent dimensional stability, impact resistance and optical clarity, for flat applications only. Typical applications include machine guards and interior glazing.

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	%	0.5 - 2
Taber haze - 500 cycles, 500 gram, CS-10F	ASTM D1044	%	2 - 4
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 2 mm	ASTM D1003	%	93
Light transmission 3 mm	ASTM D1003	%	92
Light transmission 4 mm	ASTM D1003	%	92
Light transmission 5 mm	ASTM D1003	%	91
Light transmission 6 mm	ASTM D1003	%	90
Light transmission 8 mm	ASTM D1003	%	88
Light transmission 9.5 mm	ASTM D1003	%	87
Light transmission 12 mm	ASTM D1003	%	85
Light transmission 15 mm	ASTM D1003	%	82

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

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CHEMICAL RESISTANCE

LEXAN MARGARD MRA3 sheet has high resistance to most 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 MRA3 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.

PRODUCT AVAILABILITY

Product code:	LEXAN MARGARD, MRA3
Standard gauge:	1.00, 2.00, 3.00, 4.00, 6.00 mm
Standard width:	for 1.00-2.00 mm: 1220 mm for 3.00-6.00 mm: 2000 mm
Maximum length:	3000 mm
Standard colors:	clear (112)

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