POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ MRX(1)FR SHEET

DESCRIPTION

High abrasion flame resistant - weatherable, LEXAN™ MARGARD™ MRX(1)FR sheet is a 1 or 2-side hard coated, polycarbonate sheet used for flat applications only, offering excellent abrasion resistance, excellent dimensional stability, impact resistance and optical clarity . Typical applications can be sound-barriers, separations screens and flat glazing systems needing impact resistance combined with chemical and abrasion resistance.

TYPICAL PROPERTY VALUES*

	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density[1]	ISO 1183	g/cm³	1.24
Water absorption, saturation, 23°C	ISO 62	%	0.35
MECHANICAL			
Tensile stress, yield[2]	ISO 527	MPa	60
Tensile modulus[2]	ISO 527	%	2350
Elongation, yield[2]	ISO 527	%	6
Elongation, break[2]	ISO 527	MPa	100
Flexural strength, yield[1]	ISO 178	MPa	90
Flexural modulus[1]	ISO 178	MPa	2300
Taber haze - 500 cycles, 500-gram, CS-10F**	ASTM D1044	%	<12
THERMAL			
Vicat softening temperature, B/120[1]	ISO 306	°C	145
HDT/Be, 0.45 MPa[1]	ISO 75/Be	°C	138
Coefficient of linear thermal expansion, 23-55°C[1]	ISO 11359-2	1/°C	$7x10^{-5}$

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS representative or the POLYVANTIS Quality Services Department.

** The target value for this property is 10% however, the reproducibility of the test method between laboratories is variable in that single, individual measurements can be as high as 12%.

[1] Coating will crack before specified value.

[2] Property of the base sheet and/or uncoated side

CHEMICAL RESISTANCE

LEXAN MARGARD MRX(1)FR sheet has high resistance at the coated side to many chemicals. In applications where the product will come into contact with aggressive chemicals, specific (application related) testing of the material is strongly recommended.

ASSEMBLING

Parts made from LEXAN MARGARD MRX(1)FR 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 use environmental stress cracking, please ensure that you have carried out tests regarding its suitability for your applications or end use.

CLEANING

For cleaning instructions consult our POLYVANTIS cleaning guidelines. Do not use abrasive or highly alkaline cleaners, never scrape the sheet with squeegees, razor blades or other sharp instruments. Do not clean LEXAN™ MARGARD™ sheet products in hot sun or at elevated temperatures. For removal of paints, marking pen, inks, lipstick etc. use Butyl Cellusolve. To remove labels, stickers etc. the use of kerosene, naphta, or white spirits is generally effective. Afterwards, a warm final wash should be made, using a mild soap solution, and ending with a thorough rinsing with cold water.

INSTALATION

For some applications the ripple orientation may play an important role while installing the LEXAN MARGARD MRX(1)FR sheet. The ripple orientation is indicated for this purpose on the protective masking.

SAFETY

The processing guidance given in this documentation is given in good faith and the trust that in all cases you wear the correct Personal Protective Equipment (PPE), e.g. helmet, proper gloves, safety goggles etc. to safely fabricate, e.g. (but not limited to) sawing, cutting, forming our sheets and films. In all cases you should follow local and national regulations around the wear of PPE's prescribed or mandatory to perform these tasks in a safely manor.

PRODUCT AVAILABILITY

Product code: **LEXAN™ MARGARD™ MRX(1)FR**
Standard gauges MRXFR: 6 & 12 mm
Standard gauges MRXFR: 3 mm
Standard size: 2000 x 3000mm
Color: Clear (code 116) Grey (GY5E012T)

For MRX(1)FR different colors and gauges can be made available by prior arrangement. Such arrangements may affect prices, warranty terms and/or conditions of sale.

Standard LEXAN MARGARD Light transmission	ASTM D1003 (%)
3 mm	91
4 mm	90
5 mm	89
6 mm	89
8 mm	88
9.5 mm	87
12 mm	85
15 mm	84

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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