

Description

Lexan Margard MR5FR sheet is a translucent UV, flame retardant 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, excellent all weather performance, excellent flame retardant, unique ten (10) year limited written warranty against breakage and five year limited written warranty against yellowing, loss of light transmission and coating failure (see limited written warranty).

Typical Property Values ♦

Property	Test Method	Unit	Value
Physical			
Density	ISO 1183	g/cm ³	1.23
Water absorption, 23 °C/Sat	ISO 62	mg	10.0
Mechanical			
Tensile strength, yield ##	ISO 527	MPa	60
Tensile strength, break ##	ISO 527	MPa	70
Tensile elongation, yield ##	ISO 527	%	6
Tensile elongation, break ##	ISO 527	%	120
Tensile modulus ###	ISO 527	MPa	2350
Flexural strength, max ###	ISO 178	MPa	90
Flexural modulus ###	ISO 178	MPa	2300
Thermal			
Vicat Softening Temp, Rate B / 120	ISO 306	°C	145
HDT, 0.45 MPa	ISO 75 /Be	°C	138
Thermal Conductivity	ASTM C 177	W/m°C	0.20
Coeff. of Linear Therm. Expansion	ASTM D 696	1/°C	7x10 ⁻⁵
Flammability			
Limited Oxygen Index ####	ISO 4589	%	34
Optical			
Light transmission (clear 112)	ASTM D 1003	%	90#
Taber abrasion, CS-10F, 500 cycles,500g,	ASTM D 1044/ ASTM D1003	% Haze	<12

♦ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative.

- #) measured at 3.00 mm gauge
- ##) coating will crack before specified value
- ###) property of base sheet/uncoated sheet
- ####) measured on F-2000

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Impact Strength

Virtually unbreakable, Lexan Margard MR5FR 112 sheet has up to 250 times the impact strength of glass and 30 times that of acrylic. Lexan sheet offers outstanding impact strength and complies with the majority of international standards. With a thickness of 4 mm and upwards it complies with DIN 52290 part 4.†)

DIN 52290 part 4

Level of resistance	Drop height	Striking energy per drop (J)	Total striking energy per level (J)
A1	3500 mm	141	423
A2	6500 mm	262	786
A3	9500 mm	383	1149

†) as tested on 112 color sheet

Chemical Resistance

Lexan Margard MR5FR sheet's unique coating provides immunity to many chemicals. Surface contact tests on Lexan Margard MR5FR sheet with a wide range of chemicals have proven to have no effect on impact resistance during falling dart testing, proving the excellent fit for Lexan Margard for industrial or aggressive environments. In applications where the product will come into contact with aggressive chemicals, specific testing of the material is always advised.

Fire Test Performance

Lexan Margard MR5FR has good fire performance against many national fire codes dependent on thickness and color; please check with the local sales office for details.

Product Availability

Product Code : MR5FR

Standard Size : 2000 x 3000 mm

Thicknesses : 3, 4, 5, 6, 8 and 9.5 mm

Standard Colors : clear (code 112)

For MR5FR different colors and dimensions can be made available by prior arrangement. Such arrangements may affect prices, warranty terms and/or conditions of sale.



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