

Description

High abrasion resistant, weatherable, Lexan Margard MR5 IR sheet is a both-side hard coated polycarbonate sheet offering excellent abrasion resistance, excellent dimensional stability, impact resistance, optical clarity in combination with an outstanding IR absorption . The outstanding Infra Red absorption with a Light to Solar gain ratio of 1.22 ♦ for the color GN9A047T and 1.17 ♦ for the color GN8A081T results in outstanding heat-management properties. The Solar Transmission at 6.00mm for GN8A081T is 63.5% (+/-5%) and the Solar Transmission at 6.00mm for GN9A047T is 51% (+/-5%).

Typical applications can be flat glazing in specialty vehicles, separations screens and flat glazing systems needing impact resistance combined with chemical and abrasion resistance and heat management.

Typical Property Values ♦

Property	Test Method	Unit	Value
Physical			
Density ###)	ISO 1183	g/cm ³	1.21
Water absorption 23°C/Sat	ISO 62	%	0.35
Mechanical			
Tensile stress, yield ##)	ISO 527	MPa	60
Tensile modulus ##)	ISO 527	MPa	2350
Elongation, yield ##)	ISO 527	%	6
Elongation, break ##)	ISO 527	%	100
Flexural strength, yield ###)	ISO 178	MPa	90
Flexural modulus ###)	ISO 178	MPa	2300
Thermal			
Vicat Softening Temp, Rate B /120 ###)	ISO 306	°C	145
HDT/Be, 0.45 MPa ###)	ISO 75/Be	°C	138
Thermal expansion ###)	ISO 11359-2	1/°C	7x10 ⁻⁵
Optical			
Light transmission (6mm) GN9A047T	ASTM D1003	%	62
Light transmission (6mm) GN8A081T	ASTM D1003	%	74.5
Solar transmission (6mm) GN9A047T		%	51
Solar transmission(6mm) GN8A081T		%	63.5
Taber abrasion #)			
CS10F, 500g, 500 cycles (ASTM D1044)	ASTM D1003	% haze	< 12

♦ These property values have been derived from Lexan* resin data for the material used to produce this sheet product. These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics' representative

#) 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%.

##) Coating will crack before specified value.

###) Property of the base sheet and/or uncoated side

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Chemical Resistance

Lexan Margard MR5 IR sheet has high resistance at the coated side to many chemicals, such as : diesel fuel , toluene, acetone dichloromethane . In applications where it will come into contact with aggressive chemicals, specific (application related) testing of the material is strongly recommended.

We recommend you to test the chemicals in contact with Lexan Margard MR5 IR prior to usage in a chemical aggressive environment.

Product Availability*

Product Code : MR5 IR
Standard Size : 2000 x 3000 mm
Thicknesses : 3, 6, 8 and 12 mm
Standard Colors : GN8A081T, GN9A047T

*) Other gauges and other dimensions upon request and are subject to minimum order quantities.



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