

LEXAN™ MARGARD™ MR5 IR

PRODUCT DATASHEET

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	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	%	1 - 3
Taber haze - 500 cycles, 500 gram, CS-10F	ASTM D1044	%	3 - 8
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

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

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 Color: GN8A081T

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

CONTACT US:

SABIC CORPORATE HQ

PO Box 5101
 Riyadh 11422
 Saudi Arabia
 T +966 (0) 1 225 8000
 F +966 (0) 1 225 9000
 E info@sabic.com

AMERICAS

SABIC
 Functional Forms
 2500 City West Boulevard
 Suite 100
 Houston, TX 77042
 USA
 Toll-free (800) 323 3783
 F (888) 443 2033
 E spinside.sales@sabic.com

EUROPE

SABIC
 Functional Forms
 Plasticslaan 1
 4612 PX
 Bergen op Zoom
 The Netherlands
 T +31 (0)164 293684
 F +31 (0)164 292272
 E ff.info@sabic.com

PACIFIC

SABIC
 Functional Forms
 1266 Nanjing Road (A)
 16th Floor, Plaza 66
 200040 Shanghai
 China
 T +86 21 3222 4500
 F +86 21 6289 8998
 E ff.info@sabic.com

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ("SELLER") ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER'S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller's materials, products, services or recommendations for the user's particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with TM are trademarks of SABIC or affiliates.
 © Copyright 2021. All rights reserved.

* Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.

