POLYVANTIS

PRODUCT DATASHEET

LEXAN™ MARGARD™ FMR5XTIR SHEET

DESCRIPTION

LEXAN™ MARGARD™ FMR5XTIR sheet is a transparent UV and abrasion resistant glazing material. Extremely high impact strength, with the capacity to be cold curved or drape formed. Two side formable coated, offers resistance against wear and tear in combination with an outstanding IR absorption.
The outstanding Infra-Red absorption with a Light to Solar gain ratio of 1.17 * for the color GN8A081T results in outstanding heat-management properties. The Solar Transmission at 6.00mm for GN8A081T is 63.5% (+/-5%).
Typical for shaped applications are motorbike windshields, curved windows (e.g. revolving doors), partitions, skylight, barrel vaults, balcony glazing, stair glazing, shelters and machine – safety guards.

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm³	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, 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 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.

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PRODUCT AVAILABILITY

Product code:	**LEXAN™ MARGARD™ FMR5XTIR**
Standard gauges:	6mm
Standard size:	2000 x 3000mm
Color:	IR Green – GN8A081T

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

POLYVANTIS

Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

www.polyvantis.com

LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

LEXAN is a trademark of SABIC