

LEXAN™ MARGARD™ FHC10 (FORMABLE HARD-COATED) SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ MARGARD™ FHC10 sheet is a formable silicone hard coat using dual cure (thermal/thermal) technology. The coating is pre-cured sufficiently so that it can be handled and machined as any regular polycarbonate sheet, but maintains enough flexibility to be formable within the specified limits.

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 - 500 cycles, 500 gram, CS-10F	ASTM D1044	%	<10
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
OPTICAL			
Light transmission 1.5 mm	ASTM D1003	%	90
Light transmission 3 mm	ASTM D1003	%	90
Light transmission 4 mm	ASTM D1003	%	90
Light transmission 5 mm	ASTM D1003	%	89
Light transmission 6 mm	ASTM D1003	%	89
Light transmission 8 mm	ASTM D1003	%	88
Light transmission 9.5 mm	ASTM D1003	%	87
Light transmission 12 mm	ASTM D1003	%	85

◆ Some of the property values have been derived from LEXAN™ resin data for the material used to produce this sheet product.
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CURVED APPLICATIONS

Design freedom, lightweight and optical clarity combined with its superior mechanical properties makes LEXAN™ MARGARD™ FHC10 sheet an excellent candidate for moderately shaped applications like motor-bike windshields, curved windows (e.g. revolving doors), partitions, skylights, barrel vaults, balcony glazing, stair-glazing, shelters, machine - safety guards.

CHEMICAL RESISTANCE

The mar-resistant coating of LEXAN MARGARD FHC10 sheet has sufficient resistance to common chemicals encountered in everyday use. Taking into account the complexity of chemical compatibility, we strongly recommend liaison with SABIC for testing of chemicals which are exposed to our LEXAN sheet products.

UV PROTECTION

LEXAN MARGARD FHC10 sheet has proprietary UV protected surfaces, giving excellent durability to outdoor weathering.

IMPACT STRENGTH

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.

PROCESSING

LEXAN MARGARD FHC10 sheet can be drape formed at a maximum temperature of 160°C into radii >30 times the thickness. Please consult the forming guide.

RIPPLE ORIENTATION

Ripple direction may play an important role in the optical performance of the sheet. This direction is indicated on the sheet masking.

PRODUCT AVAILABILITY

Product code:	LEXAN MARGARD FHC10 Sheet
Standard gauge:	2.00, 3.00, 4.00 and 5.00 mm
Standard sizes:	2000 x 3000 mm
Masking, Top side:	Co-ex opal white PE (matrix dot-printed grade-name)
Bottom side:	Co-ex opal white PE

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