

PRODUCT DATASHEET

LEXAN™ EXELL™ D ST SHEET

DESCRIPTION

LEXAN EXELL™ D ST sheet is a textured polycarbonate sheet with UV protection on both sides, offering excellent light diffusion without transparency. It has an excellent impact resistance, an excellent fire performance, ease of handling and installation and is an excellent candidate for wide variety of exterior and interior applications such as balcony and staircase glazing.

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
IMPACT			
Charpy impact, notched 23°C, 3.0 mm	ISO 179/1eA	kJ/m ²	75
Izod impact, unnotched 23°C, 3.0 mm	ISO 180/1U	kJ/m ²	NB
Izod impact, notched 23°C, 3.0 mm	ISO 180/1A	kJ/m ²	70
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.			
FIRE RATING			
Building & Construction			
Europe	EN 13501-1	-	B, s1, d0 (2-6mm)

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FIRE PERFORMANCE

LEXAN™ EXELL™ D ST sheet has a good fire performance against many national fire codes dependant on thickness and color; please check with the local sales office for details.

CHEMICAL RESISTANCE

LEXAN EXELL D ST sheet has sufficient resistance to most chemical substances encountered in normal exterior use. In applications where the product will come into contact with aggressive chemicals, specific (application related) testing of the material is always advised. It is essential to check the compatibility before use.

PRODUCT AVAILABILITY

Product code:	LEXAN™EXELL™ D ST Sheet
Gauges:	3,4,5,6 & 8 mm
Standard width:	1250 & 2050 mm
Textures:	Polished one side, pebble texture on reverse
Colors:	CLEAR, BRONZE

Other colors/sizes are available by special request.

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