POLYVANTIS

PRODUCT DATASHEET

LEXAN™ F6000 SHEET SERIES

DESCRIPTION

LEXAN™ F6000 sheet series is a flame retardant opaque polycarbonate sheet range available in standard and custom colors. In addition to good flammability performance, it offers excellent impact resistance, good stiffness, strength, and ease of processing, making it suitable for a wide variety of applications in industries such as electrical/ electronics and transportation (e.g. aircraft, rail).

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm³	1.21
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, 3.0 mm	ISO 179/1eA	kJ/m²	75
Izod impact, unnotched 23°C, 3.0 mm	ISO 180/1U	kJ/m²	NB
Izod impact, notched 23°C, 3.0 mm	ISO 180/1A	kJ/m²	70
THERMAL			
Vicat softening temperature, B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8	ISO 75	°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
OPTICAL			
Light transmission 3 mm	ASTM-D1003	%	n/a

PROPERTY	**TEST METHOD**	**UNITS**	**VALUE**
FIRE RATINGS			
Aircraft			
Vertical burn, 60 s	FAR 25.853(a)+App.F	-	Pass (1-6mm)
Smoke density	ABD0031	-	Pass, Ds(4min)<150 (1-
Smoke toxicity	ABD0031,BSS 7239	-	Pass (1-6mm)
Rail			
France	NF P 92-501	-	M2 (2mm)
France	NF F 16-101	-	F2 (2mm)
UK	BS 6853	-	Ao=0.125
Germany	DIN 5510-2		S4/ST2/SR2, FED<1
			S4/ST2/SR1, FED<1 (1.5-
Italy	UNI CEI 11170-3	-	Class 1B (1-3mm)
Electrical			
Vertical burn (50W)	UL94V	-	V0 (1.5-6mm)
Limited Oxygen Index	ISO 4589-2	%	35

◆ Typical values only. Variations within normal tolerances are possible for the various textures.

PRODUCT AVAILABILITY

Product code: LEXAN™ F6000
Textures:
F6000 series is available in a variety of textures:
F6005 sheet -Velvet / Matte
F6006 sheet -Suede/ Matte
F6008 sheet -Matte/Polish
F60011 sheet - Haircell / Smooth COB
F60025 sheet -Polish / Polish
F60029 sheet -Deep Velvet / Matte
See product availability guide for available gauges, sizes, and colors.

POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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