

LEXAN™ EFR33 FILM

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ EFR33 film is a one side fine matt, one side velvet Eco flame-retardant polycarbonate film with a UL94 VTM-0 listing at 0.050 mm. This film has formability, excellent mechanical and electrical properties. It offers good dimensional stability at high temperatures and a high flammability rating, making it suitable for applications such as composite lamination and PC board insulation.

TYPICAL PROPERTY VALUES

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
TENSILE STRENGTH @ YIELD (0.05 MM)				ISO 527	MPa	77.5
TENSILE MODULUS (0.05 MM)				ISO 527	MPa	4281.6
TENSILE ELONGATION AT BREAK (0.05 MM)				ISO 527	%	61
THERMAL						
COEFFICIENT OF THERMAL CONDUCTIVITY	ASTM D5470	Btu-in/(hr-ft ² -°F)	1.04		W/m-K	0.18
COEFFICIENT OF THERMAL EXPANSION(MD/TD)	ASTM E831	(x10 ⁻⁵ /°F)	52/62.2	ISO 11359	(x10 ⁻⁵ /°C)	52/62.2
SPECIFIC HEAT @ 25°C	ASTM E1269	Btu/(lb-°F)	0.3		KJ/Kg-°C	1.25
GLASS TRANSITION TEMPERATURE	ASTM D3417/D3418	°F	226	ISO 11357	°C	108
PHYSICAL						
DENSITY	ASTM D792	slug/ft ³	2.36	ISO 1183	kg/m ³	1214
WATER ABSORPTION, 24 HRS.	ASTM D570	% change	0.2	ISO 62	% change	0.2
SURFACE TENSION MATTE / VELVET SURFACE	Dyne Pens	Dyne	42			
OPTICAL						
GLOSS - MATTE / VELVET SURFACE @ 60°	ASTM D523-60	-	9.5/11.3	ISO 2813		9.5/11.3
ELECTRICAL						
DIELECTRIC CONSTANT						
@ 1 MHZ	ASTM D150	-	2.78	IEC 60250	-	2.78
DISSIPATION FACTOR						
@ 1 MHZ	ASTM D150	-	0.005	IEC 60250	-	0.005
SURFACE RESISTIVITY	ASTM D257	Ω/square	4.8E14	IEC 60093	Ω/square	4.8E14

♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC representative or the SABIC Quality Services Department. Reported Values are based on 0.432 mm (0.017") thickness unless otherwise noted.

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UL File Number: E207780



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