

Technical Data Sheet

Schuladur E GF 30 FR5

Polyethylene Terephthalate
LyondellBasell Industries
Engineering Plastics

Product Description

Flame retardant PET reinforced with 30% glass fiber, without PBDE; high CTI

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Antimony Free • Filled • Flame Retardant • Halogenated
UL File Number	• E86615
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PET GF30 FR(16)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	2.00 g/cm ³	2.00 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (280°C/2.16 Kg)	6.0 cm ³ /10min	6.0 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.78E+6 psi	12300 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	19600 psi	135 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.7 %	1.7 %	ISO 527-2/1A/5
Flexural Modulus ¹	1.80E+6 psi	12400 MPa	ISO 178
Flexural Stress ¹ (1.7% Strain)	31900 psi	220 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.8 ft·lb/in ²	10 kJ/m ²	
73°F (23°C)	4.8 ft·lb/in ²	10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	14 ft·lb/in ²	30 kJ/m ²	
73°F (23°C)	14 ft·lb/in ²	30 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Annealed	473 °F	245 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	430 °F	221 °C	ISO 75-2/af
Vicat Softening Temperature			
--	394 °F	201 °C	ISO 306/B50
--	459 °F	237 °C	ISO 306/A50
Ball Pressure Test (392°F (200°C))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746B
0.030 In (0.75 Mm)	311 °F	155 °C	
0.12 In (3.0 Mm)	311 °F	155 °C	
RTI Imp			UL 746B
0.030 In (0.75 Mm)	284 °F	140 °C	
0.12 In (3.0 Mm)	284 °F	140 °C	
RTI Str			UL 746B
0.030 In (0.75 Mm)	284 °F	140 °C	
0.12 In (3.0 Mm)	284 °F	140 °C	

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	300 V	300 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.030 In (0.75 Mm)	PLC 1	PLC 1	
0.12 In (3.0 Mm)	PLC 1	PLC 1	
Hot-wire Ignition (HWI)			UL 746A
0.030 In (0.75 Mm)	PLC 0	PLC 0	
0.12 In (3.0 Mm)	PLC 0	PLC 0	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 In (2.00 Mm)	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 In (2.00 Mm)	0.0 in/min	0.0 mm/min	FMVSS 302
Flame Rating			
0.030 In (0.75 Mm)	V-0	V-0	UL 94 IEC 60695-11-10, -20
0.06 In (1.5 Mm)	V-0	V-0	UL 94
0.12 In (3.0 Mm)	V-0	V-0	UL 94
0.06 In (1.5 Mm), Internal	5VA	5VA	UL 94
0.12 In (3.0 Mm), Internal	5VA	5VA	UL 94
0.06 In (1.5 Mm)	• V-0	• V-0	IEC 60695-11-10, -20
	• 5VA	• 5VA	
0.12 In (3.0 Mm)	• V-0	• V-0	IEC 60695-11-10, -20
	• 5VA	• 5VA	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 In (0.75 Mm)	1760 °F	960 °C	
0.06 In (1.5 Mm)	1760 °F	960 °C	
0.12 In (3.0 Mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 In (0.75 Mm)	1710 °F	930 °C	
0.06 In (1.5 Mm)	1710 °F	930 °C	
0.12 In (3.0 Mm)	1760 °F	960 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	518 to 554 °F	270 to 290 °C
Mold Temperature	284 to 302 °F	140 to 150 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	290 to 1160 psi	2.00 to 8.00 MPa
Screw Speed	< 591 in/min	< 15 m/min

Injection Notes

Mould surface contacting melt should be of non-corrosive steel (content of chrome > 12%)

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

These are typical property values not to be construed as specification limits.