

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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
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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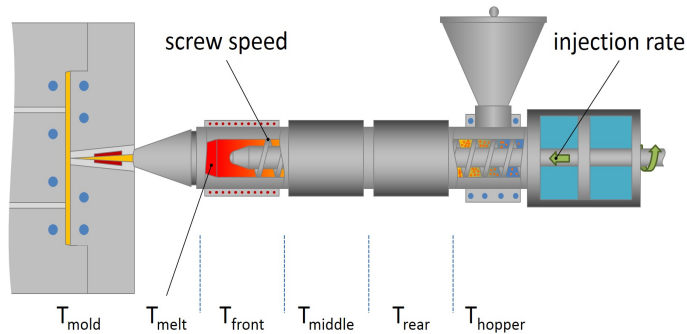
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index	300 V	300 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.030 in (0.75 mm)	PLC 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%)

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Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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