

Technical Data Sheet

Schuladur A GF 30 HF FR 1

Polybutylene Terephthalate
LyondellBasell Industries
Engineering Plastics

Product Description

Flame retardant halogenated PBT reinforced with 30% glass fibre; without PBDE; high flow

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Filled • Flame Retardant	• Good Dimensional Stability • Halogenated	• High Flow
UL File Number	• E86615		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PBT GF30 FR(17)		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Density	1.64 g/cm ³	1.64 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 Kg)	35 cm ³ /10min	35 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Tensile Modulus	1.67E+6 psi	11500 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	20300 psi	140 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0 %	2.0 %	ISO 527-2/1A/5

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
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Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.3 ft·lb/in ²	7.0 kJ/m ²	
73°F (23°C)	3.8 ft·lb/in ²	8.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	20 ft·lb/in ²	43 kJ/m ²	
73°F (23°C)	24 ft·lb/in ²	50 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	428 °F	220 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	401 °F	205 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	397 °F	203 °C	ISO 306/B50
--	424 °F	218 °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)	167 °F	75.0 °C	
0.06 In (1.5 Mm)	167 °F	75.0 °C	
0.12 In (3.0 Mm)	167 °F	75.0 °C	
RTI Imp			UL 746B
0.030 In (0.75 Mm)	167 °F	75.0 °C	
0.06 In (1.5 Mm)	167 °F	75.0 °C	
0.12 In (3.0 Mm)	167 °F	75.0 °C	
RTI Str			UL 746B
0.030 In (0.75 Mm)	167 °F	75.0 °C	
0.06 In (1.5 Mm)	167 °F	75.0 °C	
0.12 In (3.0 Mm)	167 °F	75.0 °C	

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Electric Strength ¹			IEC 60243-1
73°F (23°C), 0.0394 In (1.00 Mm), In Oil	760 V/mil	30 kV/mm	
Comparative Tracking Index (Solution A)	250 V	250 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
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 5VA	V-0 5VA	UL 94
0.12 In (3.0 Mm)	V-0	V-0	UL 94 IEC 60695-11-10, -20
0.06 In (1.5 Mm)	V-0	V-0	IEC 60695-11-10, -20
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)	1250 °F	675 °C	
0.06 In (1.5 Mm)	1250 °F	675 °C	
0.12 In (3.0 Mm)	1250 °F	675 °C	
Oxygen Index	32 %	32 %	ISO 4589-2
Flammability	0 in/min	0 mm/min	FMVSS 302

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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	482 to 500 °F	250 to 260 °C
Mold Temperature	158 to 194 °F	70 to 90 °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 2000 V/sec

Notes

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