

Technical Data Sheet



Schuladur A GF 30 HF2 FR1

Polybutylene Terephthalate
LyondellBasell Industries
Engineering Plastics

Product Description

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

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	• Filled • Flame Retardant	• 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
Density	1.62 g/cm ³	1.62 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	40 cm ³ /10min	40 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.74E+6 psi	12000 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	21800 psi	150 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.5 %	2.5 %	ISO 527-2/1A/5
Flexural Modulus	1.60E+6 psi	11000 MPa	ISO 178
Flexural Stress	34800 psi	240 MPa	ISO 178
Flexural Strain at Break	2.8 %	2.8 %	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.3 ft·lb/in ²	9.0 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)	26 ft·lb/in ²	55 kJ/m ²	
73°F (23°C)	29 ft·lb/in ²	60 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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			
--	401 °F	205 °C	ISO 306/B50
--	428 °F	220 °C	ISO 306/A50
Ball Pressure Test (392°F (200°C))	Pass	Pass	IEC 60695-10-2
RTI Elec			UL 746B
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
0.06 in (1.5 mm)	167 °F	75.0 °C	
0.12 in (3.0 mm)	167 °F	75.0 °C	
RTI Str			UL 746B
0.06 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
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	250 V	250 V	IEC 60112
High Amp Arc Ignition (HAI)			UL 746A
0.06 in (1.5 mm)	PLC 1	PLC 1	
0.12 in (3.0 mm)	PLC 1	PLC 1	
Hot-wire Ignition (HWI)			UL 746A
0.06 in (1.5 mm)	PLC 3	PLC 3	
0.12 in (3.0 mm)	PLC 2	PLC 2	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	
0.030 in (0.75 mm)	V-2	V-2	
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)	1290 °F	700 °C	
0.06 in (1.5 mm)	1380 °F	750 °C	
0.12 in (3.0 mm)	1470 °F	800 °C	
Oxygen Index	30 %	30 %	ASTM D2863

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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	464 to 500 °F	240 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

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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