

Technical Data Sheet



Schuladur A1 GF 30 HF FR 1

Polybutylene Terephthalate + PET
LyondellBasell Industries
Engineering Plastics

Product Description

High flow flame retardant halogenated PBT/PET compound reinforced with 30% glass fiber; without PBDE

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	• Good Surface Finish • Halogenated	• High Flow
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.68 g/cm ³	1.68 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	54 cm ³ /10min	54 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)	21500 psi	148 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
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)	3.3 ft·lb/in ²	7.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	19 ft·lb/in ²	40 kJ/m ²	
73°F (23°C)	22 ft·lb/in ²	46 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	426 °F	219 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	388 °F	198 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	374 °F	190 °C	ISO 306/B50
--	424 °F	218 °C	ISO 306/A50
Ball Pressure Test (392°F (200°C))	Pass	Pass	IEC 60695-10-2
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	225 V	225 V	IEC 60112
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	FMVSS 302
0.0787 in (2.00 mm), Self-Extinguishing	0.0 in/min	0.0 mm/min	ISO 3795
Flame Rating			UL 94
0.030 in (0.75 mm)	V-0	V-0	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	
	5VA	5VA	

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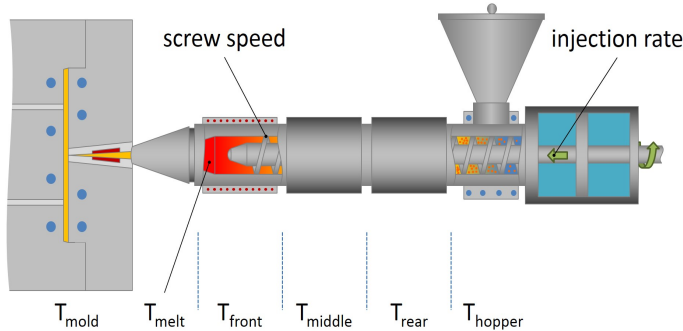
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °C	
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.030 in (0.75 mm)	1250 °F	675 °C	
0.06 in (1.5 mm)	1250 °F	675 °C	
0.12 in (3.0 mm)	1250 °F	675 °C	
Oxygen Index	34 %	34 %	ISO 4589-2

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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 518 °F	240 to 270 °C
Mold Temperature	176 to 230 °F	80 to 110 °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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