

Technical Data Sheet



Schuladur A3 GF 30 FR 1

Polybutylene Terephthalate + ASA
LyondellBasell Industries
Engineering Plastics

Product Description

High flow 30% glass fiber reinforced flame retardant halogenated PBT/ASA compound surface quality and low warpage; halogenated, 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 Dimensional Stability • Good Surface Finish	• Halogenated • Low Warpage
UL File Number	• E86615		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.58 g/cm ³	1.58 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	27 cm ³ /10min	27 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.60E+6 psi	11000 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	16700 psi	115 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.5 %	1.5 %	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)	2.9 ft·lb/in ²	6.0 kJ/m ²	
73°F (23°C)	3.1 ft·lb/in ²	6.5 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	23 ft·lb/in ²	48 kJ/m ²	
73°F (23°C)	19 ft·lb/in ²	40 kJ/m ²	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	410 °F	210 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	358 °F	181 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	306 °F	152 °C	ISO 306/B50
--	415 °F	213 °C	ISO 306/A50
Ball Pressure Test (347°F (175°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
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
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	
Glow Wire Flammability Index			IEC 60695-2-12
0.030 in (0.75 mm)	1760 °F	960 °C	IEC 60695-2-13
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			
0.030 in (0.75 mm)	1250 °F	675 °C	ISO 4589-2
0.06 in (1.5 mm)	1250 °F	675 °C	
0.12 in (3.0 mm)	1250 °F	675 °C	
Oxygen Index	30 %	30 %	

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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	0.04 %	0.04 %
Processing (Melt) Temp	482 to 500 °F	250 to 260 °C
Mold Temperature	140 to 194 °F	60 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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