

Technical Data Sheet



Schuladur A1 GF 30 LW

Polybutylene Terephthalate + PET
LyondellBasell Industries
Engineering Plastics

Product Description

30% glass fibre reinforced PBT/PET laser weldable compound (IR transparent)

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	• Laser Weldable		
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• (PBT+PET)-GF30		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.56 g/cm ³	1.56 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	17 cm ³ /10min	17 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)	20300 psi	140 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.1 %	2.1 %	ISO 527-2/1A/5
Flexural Modulus ¹	1.41E+6 psi	9700 MPa	ISO 178
Flexural Stress ¹	29000 psi	200 MPa	ISO 178
Flexural Strain at Flexural Strength	2.5 %	2.5 %	ISO 178
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)	3.8 ft·lb/in ²	8.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	21 ft·lb/in ²	44 kJ/m ²	
73°F (23°C)	23 ft·lb/in ²	48 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	374 °F	190 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	378 °F	192 °C	ISO 306/B50
--	419 °F	215 °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	175 V	175 V	IEC 60112

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	1.6 in/min	40 mm/min	ISO 3795
0.0787 in (2.00 mm)	1.6 in/min	40 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1250 °F	675 °C	
0.12 in (3.0 mm)	1250 °F	675 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	
Additional Information			
1.) Not for use in food contact applications			
2.) Not for use in medical or pharmaceutical applications			

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Processing (Melt) Temp	500 to 536 °F	260 to 280 °C
Mold Temperature	176 to 230 °F	80 to 110 °C

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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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