

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

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Laser Weldable
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PBT-PET-GF

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

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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