Technical Data Sheet

SCHULADUR® A1 GF 50

Polybutylene Terephthalate + PET
Engineering Plastics

Product Description	
50% glass fibre reinforced PBT/PET compound	
General	
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.75 g/cm³	1.75 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	20 cm³/10min	20 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	2.68E+6 psi	18500 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	25400 psi	175 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.5 %	1.5 %	ISO 527-2/1A/5
Flexural Modulus (73°F (23°C))	2.32E+6 psi	16000 MPa	ISO 178
Flexural Stress (73°F (23°C))	35500 psi	245 MPa	ISO 178
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.8 ft·lb/in²	10 kJ/m²	
73°F (23°C)	4.8 ft·lb/in²	10 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	29 ft·lb/in²	60 kJ/m²	
73°F (23°C)	29 ft·lb/in²	60 kJ/m²	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 961/30)	43500 psi	300 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	437 °F	225 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	397 °F	203 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	424 °F	218 °C	ISO 306/A50
--	394 °F	201 °C	ISO 306/B50
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

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	0.98 in/min	25 mm/min	ISO 3795
0.0787 in (2.00 mm)	0.98 in/min	25 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)	1340 °F	725 °C	
0.12 in (3.0 mm)	1520 °F	825 °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)	1470 °F	800 °C	

Additional Information

1.) Not for use in food contact applications
2.) Not for use in medical or pharmaceutical applications

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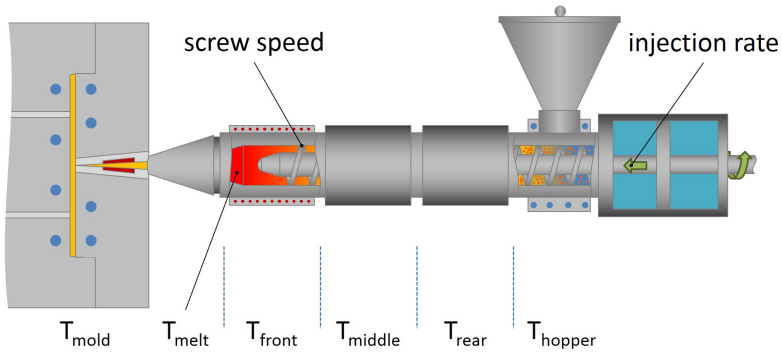

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.02 %	0.02 %
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	500 to 536 °F	260 to 280 °C
Mold Temperature	176 to 230 °F	80 to 110 °C

Notes

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