

Technical Data Sheet

SCHULADUR[®] A GF 25 HF FR 1

Polybutylene Terephthalate
Engineering Plastics

Product Description

Flame retardent halogenated PBT with 25% glass fiber; without PBDE; high flow

General

Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight
Features	• Filled • Flame Retardant • Halogenated • High Flow
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PBT GF25 FR(17)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.60 g/cm ³	1.60 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	10 cm ³ /10min	10 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.38E+6 psi	9500 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	17400 psi	120 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.6 %	2.6 %	ISO 527-2/1A/5
Flexural Modulus ¹	1.16E+6 psi	8000 MPa	ISO 178
Flexural Stress ¹	26800 psi	185 MPa	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)	2.9 ft·lb/in ²	6.0 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)	24 ft·lb/in ²	50 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	426 °F	219 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	379 °F	193 °C	ISO 75-2/af
Vicat Softening Temperature			
--	419 °F	215 °C	ISO 306/A50
--	394 °F	201 °C	ISO 306/B50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index	200 V	200 V	IEC 60112

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-0	V-0	
0.06 in (1.6 mm)	V-0	V-0	
0.13 in (3.2 mm)	V-0	V-0	
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)	1200 °F	650 °C	
0.06 in (1.5 mm)	1200 °F	650 °C	
0.12 in (3.0 mm)	1200 °F	650 °C	

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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 %
Suggested Max Regrind	25 %	25 %
Processing (Melt) Temp	482 to 500 °F	250 to 260 °C
Mold Temperature	158 to 194 °F	70 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 surfaces in contact with melt should be of non-corrosive steel, chrome content >12%

Notes

¹ 0.079 in/min (2.0 mm/min)

Notes

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