

Technical Data Sheet

Schuladur A1 GF50 BLK968001



Polybutylene Terephthalate + PET

Product Description

50% glass fibre reinforced PBT/PET compound

Processing Method Injection Molding

Filler/Reinforcement Glass Fiber, 50%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	20	cm ³ /10 min	ISO 1133
Density, (Method A)	1.75	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	1.5	%	ISO 527-2
Flexural Modulus, (23 °C)	16000	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	175	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	18500	MPa	ISO 527-1
Flexural Stress, (23 °C)	245	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	60	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	60	kJ/m ²	ISO 179
Hardness			
Ball Indentation Hardness, (H 961/30)	300	MPa	ISO 2039-1
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	201	°C	ISO 306
(A (10N), 50 °C/h)	218	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	225	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	203	°C	ISO 75-2/A
Electrical			
Volume Resistivity	10000000000000	ohm*m	IEC 62631-3-1
Surface Resistivity	1E+15	ohm	IEC 60093

Flammable

Burning Rate			
(2.00 mm)	25	mm/min	ISO 3795
(2.00 mm)	25	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	725	°C	IEC 60695-2-12
(3.0 mm)	825	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	700	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13

UL Information

Flammability Classification		
(1.5 mm)	HB	IEC 60695-11-10, -20
(3.0 mm)	HB	IEC 60695-11-10, -20

Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	120	°C
Suggested Max Moisture	0.02	%
Processing (Melt) Temp	260 to 280	°C
Mold Temperature	80 to 110	°C