

Technical Data Sheet

Schuladur A1 GF30 HF FR 1 BLK968093

Polybutylene Terephthalate + PET

Product Description

High flow flame retardant halogenated PBT/PET compound reinforced with 30% glass fiber; without PBDE

Processing Method	Injection Molding
Attribute	Filled; Good Surface Finish; Halogenated; High Flow
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	54	cm ³ /10 min	ISO 1133
Density, (Method A)	1.68	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.0	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	148	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	12000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	7.0	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	7.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	46	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	40	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	190	°C	ISO 306
(A (10N), 50 °C/h)	218	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	219	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	198	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	225	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093

Flammable

Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(0.75 mm)	675	°C	IEC 60695-2-13
(1.5 mm)	675	°C	IEC 60695-2-13
(3.0 mm)	675	°C	IEC 60695-2-13
Oxygen Index	34	%	ISO 4589-2

UL Information

Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	5VA		UL 94
(3.0 mm)	V-0		UL 94
(0.75 mm)	V-0		UL 94
Flammability Classification			
(0.75 mm)	V-0		IEC 60695-11-10, -20
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20

Injection Parameters

	Nominal Value	Units
Drying Time	2.0 to 4.0	hr
Drying Temperature	120	°C
Suggested Max Moisture	0.02	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	240 to 270	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	80 to 110	°C