Technical Data Sheet

Schuladur FRA GF30 HF2HI FR1 BLK

Polybutylene Terephthalate

Product Description
Flame retardant PBT with 30% glass fiber; high flow, high impact, halogenated

Processing Method	Injection Molding
Attribute	Filled; Halogenated; High Flow; Impact Modified
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PBT-I GF30 FR(17)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	22	cm³/10 min	ISO 1133
Density, (Method A)	1.58	g/cm³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.5	%	ISO 527-2
Flexural Modulus	9800	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	120	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	9200	MPa	ISO 527-1
Flexural Stress, (2.8%)	195	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	10	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	8.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	62	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	63	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	196	°C	ISO 306
(A (10N), 50 °C/h)	>250	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	221	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	204	°C	ISO 75-2/A
Electrical			

Comparative Tracking Index (CTI)	300	V	IEC 60112
Flammable			
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)	725	°C	IEC 60695-2-13
(1.5 mm)	725	°C	IEC 60695-2-13
(3.0 mm)	725	°C	IEC 60695-2-13
Oxygen Index	30	%	ISO 4589-2
UL Information			
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

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	250 to 260	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	70 to 90	°C