Technical Data Sheet

Schuladur A GF30 HF2 FR1 WHI960377

Polybutylene Terephthalate

Product Description

Flame retardant halogenated PBT reinforced with 30% glass fibre; without PBDE; high flow

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

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	40	cm³/10 min	ISO 1133
Density, (Method A)	1.62	g/cm³	ISO 1183
Mechanical			
Flexural Strain at Break	2.8	%	ISO 178
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.5	%	ISO 527-2
Flexural Modulus	11000	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	150	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	12000	MPa	ISO 527-1
Flexural Stress	240	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)	9.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	60	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	55	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	205	°C	ISO 306
(A (10N), 50 °C/h)	220	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	220	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	205	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
RTI Imp			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
RTI Str			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	250	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
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)	700	°C	IEC 60695-2-13
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	800	°C	IEC 60695-2-13
Oxygen Index	30	%	ASTM D2863
UL Information			
Flammability Classification			
(0.75 mm)	V-2		IEC 60695-11-10, -20
(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	240 to 260	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	70 to 90	°C