Technical Data Sheet

Schuladur E GF 30 FR 5 NAT

Polyethylene Terephthalate

Product Description
Flame retardant PET reinforced with 30% glass fiber, without PBDE; high CTI

Processing Method	Injection Molding
Attribute	Antimony Free; Filled; Halogenated
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PET GF30 FR(16)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (280 °C/2.16 kg)	6.0	cm³/10 min	ISO 1133
Density, (Method A)	2.00	g/cm³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	1.7	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	12400	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	135	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	12300	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min, 1.7%)	220	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)	10	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	30	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	30	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (200 °C) (IEC 60695-10-2)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	201	°C	ISO 306
(A (10N), 50 °C/h)	237	°C	ISO 306
Deflection Temperature Under Load Annealed (0.45 MPa), (Flatwise)	245	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	221	°C	ISO 75-2/A

RTI Elec			
(3.0 mm)	155	°C	UL 746B
(0.75 mm)	155	°C	UL 746B
RTI Imp			
(3.0 mm)	140	°C	UL 746B
(0.75 mm)	140	°C	UL 746B
RTI Str			
(3.0 mm)	140	°C	UL 746B
(0.75 mm)	140	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	300	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)	0.0	mm/min	ISO 3795
(2.00 mm)	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)	930	°C	IEC 60695-2-13
(1.5 mm)	930	°C	IEC 60695-2-13
(3.0 mm)	960	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(1.5 mm)	5VA		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)	5VA		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
(3.0 mm)	5VA		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	270 to 290	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	140 to 150	°C