

Technical Data Sheet

Schuladur A3 GF30 FR1 NAT

Polybutylene Terephthalate + ASA

Product Description

High flow 30% glass fiber reinforced flame retardant halogenated PBT/ASA compound surface quality and low warpage; halogenated.

Processing Method	Injection Molding
Attribute	Filled; Good Dimensional Stability; Good Surface Finish; Halogenated; Low Warpage
Additive	Flame Retardant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PBT/ASA GF30 FR(17) (ISO 1043)

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	27	cm ³ /10 min	ISO 1133
Density, (Method A)	1.58	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break, (Type 1A, 5 mm/min)	1.5	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	115	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	11000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	6.5	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	6.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	40	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	48	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (175 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	152	°C	ISO 306
(A (10N), 50 °C/h)	213	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	210	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	181	°C	ISO 75-2/A

RTI Elec			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 mm)	75.0	°C	UL 746B
RTI Imp			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 mm)	75.0	°C	UL 746B
RTI Str			
(1.5 mm)	75.0	°C	UL 746B
(3.0 mm)	75.0	°C	UL 746B
(0.75 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
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	30	%	ISO 4589-2
UL Information			
Flame Rating			
(1.5 mm)	V-0		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)	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	0.04	%
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	60 to 90	°C