Technical Data Sheet

Schuladur A1 GF 30 LW CN1 BLK

Polybutylene Terephthalate + PET

Product Description
30% glass fibre reinforced PBT/PET laser weldable compound (IR transperant)

Processing Method	Injection Molding
Attribute	Laser Weldable
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	(PBT+PET)-GF30

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/2.16 kg)	17	cm³/10 min	ISO 1133
Density, (Method A)	1.56	g/cm³	ISO 1183
Mechanical			
Flexural Strain at Flexural Strength	2.5	%	ISO 178
Tensile Strain at Break, (Type 1A, 5 mm/min)	2.1	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	9700	MPa	ISO 178
Tensile Stress at Break, (Type 1A, 5 mm/min)	140	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	11000	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min)	200	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	8.0	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	6.0	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	48	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	44	kJ/m²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	192	°C	ISO 306
(A (10N), 50 °C/h)	215	°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)	190	°C	ISO 75-2/A
Electrical			

Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	175	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	40	mm/min	ISO 3795
(2.00 mm)	40	mm/min	FMVSS 302
Glow Wire Flammability Index			
(1.5 mm)	675	°C	IEC 60695-2-12
(3.0 mm)	675	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	700	°C	IEC 60695-2-13
(3.0 mm)	700	°C	IEC 60695-2-13
UL Information			
Flammability Classification			
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20

Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	120	°C
Suggested Max Moisture	0.02	%
Processing (Melt) Temp	260 to 280	°C
Mold Temperature	80 to 110	°C