Technical Data Sheet

Schulamid 6 GF 30 TC BLK 968001

Polyamide 6

Product Description

30% glass fiber reinforced compound based on Polyamide 6

Processing Method	Injection Molding
Attribute	Good Dimensional Stability; Good Flow; Good Processability; Low Density; Low Gloss; Low Moisture Absorption; Noise Damping; Oil Resistant
Additive	Hydrolysis Resistant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PA6-I-GF30

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (260 °C/5.0 kg)	12	cm³/10 min	ISO 1133
Density, (Method A)	1.25	g/cm³	ISO 1183
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	3.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	4.5	%	ISO 527-2
Flexural Modulus	7000	MPa	ISO 178
Tensile Stress at Break			
(Type 1A, 5 mm/min)	130	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	95.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	8700	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	6700	MPa	ISO 527-1
Flexural Stress, (3.3%)	180	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	14	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	17	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	56	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	46	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	60	kJ/m²	ISO 179
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	175	°C	ISO 306
(A (10N), 50 °C/h)	220	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	215	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	190	°C	ISO 75-2/A
Flammable			
Burning Rate			
(2.00 mm)	12	mm/min	FMVSS 302
(2.00 mm)	12	mm/min	ISO 3795
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	3.0 to 4.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Nozzle Temperature	260	°C
Screw Speed	<300	mm/sec
Processing (Melt) Temp	250 to 270	°C
Front Temperature	250	°C
Holding Pressure	50.0 to 110	MPa
Hopper Temperature	70	°C
Middle Temperature	240	°C
Vent Depth	0.02	mm
Rear Temperature	230	°C
Injection Rate	Fast	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	60 to 90	°C
Injection Pressure	100 to 180	MPa
Cushion	2.00 to 5.00	mm