Technical Data Sheet

Schulamid 6 GF40 H NAT

Polyamide 6

Product Description

40% glass fiber reinforced, heat stabilized Polyamide 6

Processing Method	Injection Molding
Attribute	Heat Stabilized; High Stiffness
Filler/Reinforcement	Glass Fiber, 40%
Resin ID	PA6 GF40

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.45	g/cm³	ISO 1183
Viscosity Number	145	cm³/g	ISO 307
Mechanical			
Flexural Strain at Flexural Strength	3.5	%	ISO 178
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.8	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	6.3	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	12000	MPa	ISO 178
Tensile Stress at Break			
(Type 1A, 5 mm/min)	200	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	128	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	14000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	8500	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min)	300	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	22	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	94	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	86	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	212	°C	ISO 306
(A (10N), 50 °C/h)	216	°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)	205	°C	ISO 75-2/A
Flammable			
Burning Rate			
(2.00 mm)	<100	mm/min	ISO 3795
(2.00 mm)	<100	mm/min	FMVSS 302

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	%
Processing (Melt) Temp	250 to 280	°C
Mold Temperature	60 to 100	°C