Technical Data Sheet

Schulamid 6 GF30 HI K1992 NAT

Polyamide 6

Product Description

30% glass fiber reinforced high impact Polyamid 6

Processing Method	Injection Molding
Attribute	Good Chemical Resistance; Good Flow; Good Toughness; High Impact Resistance; Oil Resistant
Filler/Reinforcement	Glass Fiber, 30%
Resin ID	PA6I GF30

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.28	g/cm³	ISO 1183
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	5.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	6.5	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	135	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	90.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	8000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	4800	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	22	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	14	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	40	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	85	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	80	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Hardness			
Ball Indentation Hardness			
(H 358/30)	175	MPa	ISO 2039-1
(H 358/30) - Conditioned	115	MPa	ISO 2039-1
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	200	°C	ISO 306
(A (10N), 50 °C/h)	210	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	200	°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
- Conditioned	>1.0E+10	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	550	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	>1.0E+12	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	45	mm/min	FMVSS 302
(2.00 mm)	45	mm/min	ISO 3795
Additional Information			
Water Absorption 23C/50RH	1.9	%	ISO 62
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	%
Processing (Melt) Temp	250 to 280	°C
Mold Temperature	60 to 100	°C