

Technical Data Sheet

Schulamid 6 GF50 BLK968195

Polyamide 6

Product Description

50% glass fiber reinforced Polyamide 6 with high tensile strength and stiffness

Processing Method Injection Molding

Attribute High Temperature Strength; High Tensile Strength; Medium Flow; Oil Resistant; Ultra High Stiffness

Filler/Reinforcement Glass Fiber, 50%

Resin ID PA6-GF50

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.55	g/cm ³	ISO 1183
Viscosity Number	145	cm ³ /g	ISO 307
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.2	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	4.5	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	210	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	130	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	16000	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	9500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	15	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	24	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	95	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	90	kJ/m ²	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)	30 mm/min	ISO 3795
(2.00 mm)	30 mm/min	FMVSS 302
Glow Wire Flammability Index		
(1.5 mm) - Conditioned	650 °C	IEC 60695-2-12
(3.0 mm) - Conditioned	650 °C	IEC 60695-2-12
UL Information		
Flammability Classification		
(1.5 mm)	HB	IEC 60695-11-10, -20
(3.0 mm)	HB	IEC 60695-11-10, -20
UL File Number	E86615	

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