

Technical Data Sheet

Schulamid IFP SAM 6 MV HI NAT 20KG



Polyamide 6

Product Description

Schulamid IFP SAM 6 MV HI NAT 20KG is a Polyamide 6 material and is typically used in Injection Molding applications. Features include: Grease Resistant, High Impact Resistance, Low Temperature Toughness, Medium Viscosity, and Oil Resistant.

Processing Method Injection Molding

Attribute Grease Resistant; High Impact Resistance; Low Temperature Toughness; Medium Viscosity; Oil Resistant

Resin ID PA6-I

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.11	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	60.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	35.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>100	%	ISO 527-2
(50 mm/min, Type 1A)	>50	%	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	4.2	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	20	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	2200	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	800	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	16	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	60	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Hardness			

Ball Indentation Hardness				
(H 358/30)	110	MPa		ISO 2039-1
(H 358/30) - Conditioned	60.0	MPa		ISO 2039-1
Thermal				
Vicat Softening Temperature				
(B (50N), 50 °C/h)	175	°C		ISO 306
(A (10N), 50 °C/h)	215	°C		ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	140	°C		ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C		ISO 75-2/A
RTI Elec				
(1.5 mm)	65.0	°C		UL 746B
(3.0 mm)	65.0	°C		UL 746B
RTI Imp				
(1.5 mm)	65.0	°C		UL 746B
(3.0 mm)	65.0	°C		UL 746B
RTI Str				
(1.5 mm)	65.0	°C		UL 746B
(3.0 mm)	65.0	°C		UL 746B
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)	600	V		IEC 60112
Surface Resistivity	>1.0E+15	ohm		IEC 60093
- Conditioned	>1.0E+12	ohm		IEC 60093
Flammable				
Burning Rate				
(2.00 mm)	<100	mm/min		ISO 3795
(2.00 mm)	<100	mm/min		FMVSS 302
Glow Wire Flammability Index				
(1.5 mm)	650	°C		IEC 60695-2-12
(3.0 mm)	650	°C		IEC 60695-2-12
Additional Information				
Water Absorption 23C/50RH	2.3	%		ISO 62
UL Information				
Flammability Classification				
(0.75 mm)	HB			IEC 60695-11-10, -20
(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 270	°C		
Mold Temperature	60 to 90	°C		