

Technical Data Sheet

Schulamid 66 MV HI K1416 NAT



Polyamide 66

Product Description

Impact modified Polyamide 66

Processing Method Injection Molding

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

Resin ID PA66I

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.08	g/cm ³	ISO 1183
Mechanical			
Flexural Strain at Flexural Strength	7	%	ISO 176
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	55.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	40.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>100	%	ISO 527-2
(50 mm/min, Type 1A)	>40	%	ISO 527-2
Flexural Modulus, (2.0 mm/min)	1950	MPa	ISO 178
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	5.5	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	25	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	2100	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	750	MPa	ISO 527-1
Flexural Stress, (2.0 mm/min)	75.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	65	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	18	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	95	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
Thermal			

Vicat Softening Temperature			
(B (50N), 50 °C/h)	210	°C	ISO 306
(A (10N), 50 °C/h)	>250	°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)			
	62.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Surface Resistivity	>1.0E+15	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	2.1	%	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	270 to 290	°C
Mold Temperature	60 to 100	°C