Technical Data Sheet

Schulamid 6 MV MO1 NAT

Polyamide 6

Product Description

Medium viscosity PA 6 with molybdenum sulfide for tribological applications

Processing Method	Injection Molding
Attribute	Medium Viscosity
Additive	Molybdenum Disulfide Lubricant

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.14	g/cm³	ISO 1183
Viscosity Number	146	cm³/g	ISO 307
Mechanical			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	90.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	40.0	MPa	ISO 527-2
Nominal Tensile Strain at Break	8	%	ISO 527-2
- Conditioned	240	%	ISO 527-2
Flexural Modulus	3100	MPa	ISO 178
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	4.0	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	23	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 50 mm/min)	76.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	58.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	3500	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	850	MPa	ISO 527-1
Flexural Stress	115	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	4.9	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	3.8	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	42	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	78	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	59	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179

Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	201	°C	ISO 306
(A (10N), 50 °C/h)	216	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	181	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	70.0	°C	ISO 75-2/A
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
- Conditioned	10000000000	ohm*m	IEC 62631-3-1
Surface Resistivity	>1.0E+15	ohm	IEC 60093
- Conditioned	1000000000000	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	<100	mm/min	FMVSS 302
(2.00 mm)	<100	mm/min	ISO 3795
Additional Information			
Water Absorption 23C/50RH	3	%	ISO 62

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