

Technical Data Sheet

Schulaketon MV NAT

Polyketone, Aliphatic

Product Description

Medium viscosity aliphatic Polyketon

Processing Method Extrusion; Injection Molding

Resin ID PK

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Volume Flow Rate, (240 °C/2.16 kg)	6.0	cm ³ /10 min	ISO 1133
Density, (Method A)	1.24	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 50 mm/min)	60.0	MPa	ISO 527-2
Flexural Modulus, (2.0 mm/min)	1700	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 50 mm/min)	20	%	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	1600	MPa	ISO 527-1
Flexural Stress			
(2.0 mm/min, 3.5%)	60.0	MPa	ISO 178
(2.0 mm/min, 9.0%)	60.0	MPa	ISO 178
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	16	kJ/m ²	ISO 179
(-40 °C, Type 1, Edgewise, Notch A)	3.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-40 °C)	No Break		ISO 179
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	187	°C	ISO 306
(A (10N), 50 °C/h)	214	°C	ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	178	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	83.0	°C	ISO 75-2/A
RTI Elec			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B

RTI Imp			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B
RTI Str			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B
Electrical			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI), (Solution A)	600	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	<100	mm/min	FMVSS 302
(2.00 mm)	<100	mm/min	ISO 3795
Glow Wire Flammability Index			
(1.5 mm)	700	°C	IEC 60695-2-12
(3.0 mm)	700	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	725	°C	IEC 60695-2-13
(3.0 mm)	725	°C	IEC 60695-2-13
UL Information			
Flame Rating			
(1.6 mm)	HB		UL 94
(3.2 mm)	HB		UL 94
(0.8 mm)	HB		UL 94
Flammability Classification			
(0.8 mm)	HB		IEC 60695-11-10, -20
(1.6 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20

		Nominal	
Injection Parameters		Value	Units
Drying Time	3.0 to 4.0	hr	
Drying Temperature	80	°C	
Suggested Max Moisture	0.15	%	
Processing (Melt) Temp	225 to 240	°C	
Mold Temperature	60 to 120	°C	