Technical Data Sheet

Schulaketon LTM040 FC NOM NAT

Polyketone, Aliphatic

Product Description

Aliphatic Polyketon, approved for food contact [FC], low melt type.

Processing Method	Extrusion; Injection Molding
Attribute	Food Contact Acceptable
Resin ID	PK

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.22	g/cm³	ISO 1183
Mechanical			
Tensile Stress at Yield, (Type 1A, 23 °C, 50 mm/min)	48.5	MPa	ISO 527-2
Nominal Tensile Strain at Break	420	%	ISO 527-2
Flexural Modulus, (23 °C)	1270	MPa	ISO 178
Tensile Strain at Yield, (Type 1A, 23 °C, 50 mm/min)	15	%	ISO 527-2
Tensile Stress at Break	67	MPa	ISO 527-2
Tensile Modulus, (23 °C)	1150	MPa	ISO 527-1
Flexural Stress, (3.5%)	37.0	MPa	ISO 178
Flexural Strength, (23 °C)	53.0	MPa	ASTM D790
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	8.6	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	2.6	kJ/m²	ISO 179
(-40 °C, Type 1, Edgewise, Notch A)	2.7	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(-40 °C, Type 1, Edgewise)	63	kJ/m²	ISO 179
Hardness			
Shore Hardness, (Shore D, 3 sec)	72		ISO 48-4
Ball Indentation Hardness, (H 358/30)	80.0	MPa	ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	149	°C	ISO 306
(A (10N), 50 °C/h)	181	°C	ISO 306

Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	118	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0	°C	ISO 75-2/A
Melting Temperature, (DIN 51007)	196	°C	
Flammable			
Burning Rate			
(2.00 mm)	28	mm/min	ISO 3795
(2.00 mm)	28	mm/min	FMVSS 302
UL Information			
Flame Rating			
(1.6 mm)	HB		UL 94
(3.2 mm)	HB		UL 94
Flammability Classification			
(1.6 mm)	HB		IEC 60695-11-10, -20
(3.2 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	0.15	%
Processing (Melt) Temp	225 to 240	°C
Mold Temperature	60 to 120	°C