

Technical Data Sheet

SCHULAKETON LTM040 FC

Polyketone, Aliphatic
Engineering Plastics

Product Description

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

General

Features	• Food Contact Acceptable	
Processing Method	• Extrusion	• Injection Molding
Resin ID (ISO 1043)	• PK	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.22 g/cm ³	1.22 g/cm ³	ISO 1183/A
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	167000 psi	1150 MPa	ISO 527-2
Tensile Stress			
Yield, 73°F (23°C)	7030 psi	48.5 MPa	ISO 527-2/1A/50
Break	9720 psi	67.0 MPa	ISO 527-2
Tensile Strain (Yield, 73°F (23°C))	15 %	15 %	ISO 527-2/1A/50
Nominal Tensile Strain at Break	420 %	420 %	ISO 527-2
Flexural Modulus (73°F (23°C))	184000 psi	1270 MPa	ISO 178
Flexural Strength			
73°F (23°C)	7690 psi	53.0 MPa	ASTM D790
3.5% Strain	5370 psi	37.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°F (-40°C)	1.3 ft·lb/in ²	2.7 kJ/m ²	
-22°F (-30°C)	1.2 ft·lb/in ²	2.6 kJ/m ²	
73°F (23°C)	4.1 ft·lb/in ²	8.6 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-40°F (-40°C)	30 ft·lb/in ²	63 kJ/m ²	
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness (Shore D, 3 sec)	72	72	ISO 7619-1
Ball Indentation Hardness (H 358/30)	11600 psi	80.0 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	244 °F	118 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	140 °F	60.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	358 °F	181 °C	ISO 306/A50
--	300 °F	149 °C	ISO 306/B50
Melting Temperature	385 °F	196 °C	DIN 51007

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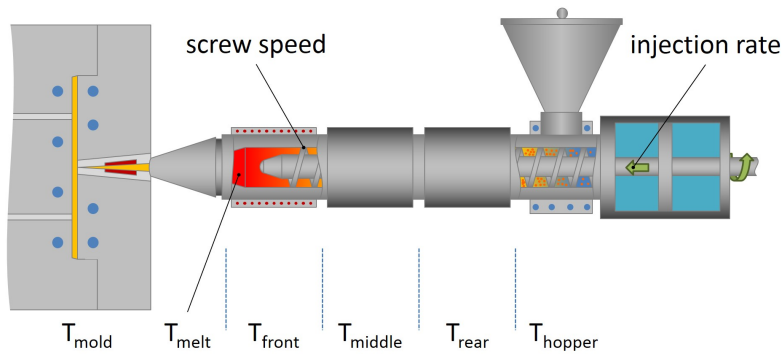
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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	1.1 in/min	28 mm/min	ISO 3795
0.0787 in (2.00 mm)	1.1 in/min	28 mm/min	FMVSS 302
Flame Rating			UL 94
0.06 in (1.6 mm)	HB	HB	IEC 60695-11-10,
0.13 in (3.2 mm)	HB	HB	-20

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.15 %	0.15 %
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	437 to 464 °F	225 to 240 °C
Mold Temperature	140 to 248 °F	60 to 120 °C

Injection Notes

Before start, nozzle, screw, barrel and hot-runner have to be cleaned with Polyolefin. Contamination of other material leads to degradation or crosslinking of SCHULAKETON®.

Avoid shut down for more than 15 minutes at moulding temperature, because of degradation and crosslinking of SCHULAKETON®. Purge with Polyolefin!

Notes

These are typical property values not to be construed as specification limits.