

Technical Data Sheet

SCHULAKETON OG

Polyketone, Aliphatic
Engineering Plastics

Product Description

High viscosity aliphatic Polyketone for oil and gas applications

General

Processing Method	• Extrusion	• Injection Molding
Resin ID (ISO 1043)	• PK	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.24 g/cm ³	1.24 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (240°C/2.16 kg)	3.00 cm ³ /10min	3.00 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
73°F (23°C)	203000 psi	1400 MPa	ISO 527-2
176°F (80°C)	87000 psi	600 MPa	ISO 527-2/1A/1
Tensile Stress			
Yield, 73°F (23°C)	8700 psi	60.0 MPa	ISO 527-2
Yield, 176°F (80°C)	6530 psi	45.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	20 %	20 %	ISO 527-2/1A/50
Flexural Modulus ¹	218000 psi	1500 MPa	ISO 178
Flexural Stress ¹			ISO 178
9.0% Strain	8700 psi	60.0 MPa	
3.5% Strain	8700 psi	60.0 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°F (-40°C)	2.4 ft·lb/in ²	5.0 kJ/m ²	
73°F (23°C)	10 ft·lb/in ²	22 kJ/m ²	
Charpy Unnotched Impact Strength			
-40°F (-40°C)	No Break	No Break	ISO 179
73°F (23°C)	No Break	No Break	ISO 179/1eU
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/Af
264 psi (1.8 MPa), Unannealed	198 °F	92.0 °C	
Vicat Softening Temperature	376 °F	191 °C	ISO 306/B50
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302
Flame Rating			UL 94 IEC 60695-11-10, -20
0.06 in (1.6 mm)	HB	HB	
0.13 in (3.2 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1290 °F	700 °C	
0.12 in (3.0 mm)	1290 °F	700 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1340 °F	725 °C	
0.12 in (3.0 mm)	1340 °F	725 °C	

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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

¹ 0.079 in/min (2.0 mm/min)

Notes

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