Technical Data Sheet

Schulaketon E

Polyketone, Aliphatic
LyondellBasell Industries
Engineering Plastics

Product Description
High viscosity aliphatic Polyketon for injection molding and extrusion applications.

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.22 g/cm³	1.22 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (240°c/5.0 Kg)	8.0 cm³/10min	8.0 cm³/10min	ISO 1133
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus			
73°f (23°c)	174000 psi	1200 MPa	ISO 527-1
176°f (80°c)	87000 psi	600 MPa	ISO 527-1/1A/1
Tensile Stress			
Yield, 73°f (23°c)	6530 psi	45.0 MPa	ISO 527-2
Yield, 176°f (80°c)	5080 psi	35.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	20 %	20 %	ISO 527-2/1A/50
Flexural Modulus [1]	189000 psi	1300 MPa	ISO 178
Flexural Stress [1]			ISO 178
9.0% Strain	6530 psi	45.0 MPa	
3.5% Strain	6530 psi	45.0 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/in²	5.0 kJ/m²	
73°f (23°c)	7.1 ft·lb/in²	15 kJ/m²	
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**
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	284 °F	140 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	158 °F	70.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	302 °F	150 °C	ISO 306/B50
--	367 °F	186 °C	ISO 306/A50
Melting Temperature	388 °F	198 °C	
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Comparative Tracking Index (Solution A)	600 V	600 V	IEC 60112

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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
0.06 In (1.6 Mm)	HB	HB	IEC 60695-11-10, -20
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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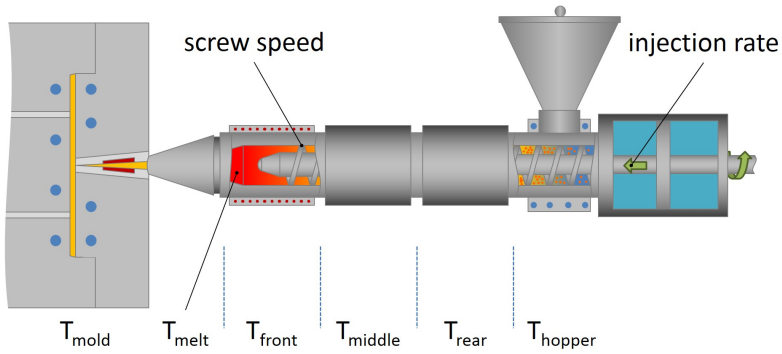

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.15 %	0.15 %
Processing (Melt) Temp	437 to 464 °F	225 to 240 °C
Mold Temperature	140 to 248 °F	60 to 120 °C

Injection Notes

Before production 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 possible 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.