

Technical Data Sheet

Schulaketon CF 20

Polyketone, Aliphatic
LyondellBasell Industries
Engineering Plastics

Product Description

20% carbon fiber reinforced aliphatic Polyketone

General

Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PK CF20

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.32 g/cm ³	1.32 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (240°C/2.16 Kg)	7.0 cm ³ /10min	7.0 cm ³ /10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	1.87E+6 psi	12900 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	19600 psi	135 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	1.7 %	1.7 %	ISO 527-2/1A/50
Flexural Modulus ¹	1.73E+6 psi	11900 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°F (-40°C)	1.9 ft·lb/in ²	4.0 kJ/m ²	
73°F (23°C)	3.8 ft·lb/in ²	8.0 kJ/m ²	
Charpy Unnotched Impact Strength			
-40°F (-40°C)	16 ft·lb/in ²	33 kJ/m ²	ISO 179
73°F (23°C)	21 ft·lb/in ²	45 kJ/m ²	ISO 179/1eU
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ISO 75-2/Af
264 Psi (1.8 Mpa), Unannealed	410 °F	210 °C	
Vicat Softening Temperature	397 °F	203 °C	ISO 306/B50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	1.0E+3 ohms	1.0E+3 ohms	IEC 60093
Volume Resistivity	1.0E+3 ohms·m	1.0E+3 ohms·m	IEC 62631-3-1
Comparative Tracking Index (Solution A)	125 V	125 V	IEC 60112
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,
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 %
Processing (Melt) Temp	473 to 500 °F	245 to 260 °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.