

Technical Data Sheet

# Schulaketon CF 20

Polyketone, Aliphatic  
LyondellBasell Industries  
Engineering Plastics

**Product Description**  
20% carbon fiber reinforced aliphatic Polyketon

**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 <sup>3</sup>	1.32 g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR) (240°C/2.16 Kg)	7.0 cm <sup>3</sup> /10min	7.0 cm <sup>3</sup> /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 <sup>1</sup>	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 <sup>2</sup>	4.0 kJ/m <sup>2</sup>	
73°F (23°C)	3.8 ft·lb/in <sup>2</sup>	8.0 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			
-40°F (-40°C)	16 ft·lb/in <sup>2</sup>	33 kJ/m <sup>2</sup>	ISO 179
73°F (23°C)	21 ft·lb/in <sup>2</sup>	45 kJ/m <sup>2</sup>	ISO 179/1eU

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 Psi (1.8 Mpa), Unannealed	410 °F	210 °C	ISO 75-2/af
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

<sup>1</sup> 0.079 in/min (2.0 mm/min)

### Notes

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