WDF® PEEK K900CF20-HV

Polyetheretherketone

Worldful Polymer (Shanghai) Co., Ltd.

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Technical Data

Product Description

K900CF-HV is a 20% carbon fiber reinforced Polyetheretherketone with high viscosity. The material has excellent wear resistance, chemical resistance, high strength, dimensional stability and high heat resistance.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (Chinese) • Technical Datasheet (English)		
Availability	• Asia Pacific		
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight		
Features	• Chemical Resistant • Good Dimensional Stability	• High Heat Resistance • High Strength	• High Viscosity • Wear Resistant
Uses	• Aerospace Applications • Automotive Applications	• Industrial Applications • Medical/Healthcare Applications	
Appearance	• Black		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.37	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/5.0 kg)	4.0	g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow	0.10 to 0.30	%	
Across Flow	0.60 to 0.90	%	
Water Absorption (Equilibrium)	0.30	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3]	210	MPa	ASTM D638
Tensile Elongation [3] (Break)	2.1	%	ASTM D638
Flexural Modulus [4]	16000	MPa	ASTM D790
Flexural Strength [4]	310	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength	400	J/m	ASTM D256
Notched Izod Impact	80	J/m	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	100		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	334	°C	
1.8 MPa, Unannealed	325	°C	
Vicat Softening Temperature [5]	335	°C	ASTM D1525 [6]
Melting Temperature	343	°C	ASTM D2133
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+7	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.6 mm	V-0		
3.2 mm	V-0		

Injection	Nominal Value	Unit
Drying Temperature	140 to 170	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	360 to 390	°C

Form No. TDS-403074-en

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Injection	Nominal Value	Unit
Middle Temperature	380 to 410	°C
Front Temperature	380 to 400	°C
Processing (Melt) Temp	350 to 390	°C
Mold Temperature	150 to 200	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.00 to 3.00	MPa

Injection Notes
Processing Temp. Limit <430 °C

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] Typical properties: these are not to be construed as specifications.

[3] 50 mm/min

[4] 20 mm/min

[5] .125"

[6] Rate A (50°C/h)

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Where to Buy

Supplier

Worldful Polymer (Shanghai) Co., Ltd.
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Web: http://www.wdfsh.cn

Distributor

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Web: http://www.wdfsh.cn
Availability: China

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