

# HiFill® PEEK CF40 HF

Polyetheretherketone

Techmer Engineered Solutions

## Message:

HiFill® PEEK CF40 HF is a Polyetheretherketone (PEEK) product filled with 40% carbon fiber. It can be processed by injection molding and is available in North America. Primary characteristic: high flow.

General Information			
Filler / Reinforcement	Carbon Fiber,40% Filler by Weight		
Features	High Flow		
Appearance	Black		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.45	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10	%	ASTM D955
Water Absorption (24 hr)	0.12	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	276	MPa	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	30300	MPa	ASTM D790
Flexural Strength	414	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	110	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	288	°C	ASTM D648
CLTE - Flow	1.1E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+6	ohms · cm	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	249	°C	
Drying Time	2.0 to 4.0	hr	
Rear Temperature	360 to 388	°C	
Middle Temperature	360 to 388	°C	
Front Temperature	360 to 388	°C	
Processing (Melt) Temp	360 to 382	°C	
Mold Temperature	177 to 218	°C	
Back Pressure	0.345 to 0.689	MPa	

Screw Speed

50 to 100

rpm

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

