InElec® PEINCCF40HF

Product Description 40% NICKEL COATED CARBON FIBER REINFORCED HIGH FLOW POLYETHERIMIDE

Material Status Commercial: Active

Availability Africa & Middle East, Asia Pacific, Europe, Latin America, North America

Filler / Reinforcement Carbon Fiber, 40% Filler by Weight

Features Electrically Conductive, Electromagnetic Shielding (EMI), ESD Protection, Filled, Good Dimensional Stability, High Flow, High Stiffness, High Strength, Permanent Antistatic, Radio Frequency Shielding (RFI)

Uses Aerospace Applications, Connectors, Consumer Applications, Electrical/Electronic Applications, Engineering Parts, Industrial Applications, Industrial Parts, Metal Replacement, Military/Defense Applications, Oil/Gas Applications, Outdoor Applications, Semiconductor Applications

Forms Pellets

Processing Method Injection Molding

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.62	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.050 to 0.20	%	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	193	MPa	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	16500	MPa	ASTM D790
Flexural Strength	269	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	64	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	370 to 480	J/m	ASTM D4812

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	218	°C	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0 to 10	ohms	ASTM D257
Shielding Effectiveness - 30-1000 MHZ	65 to 80	dB	ASTM D4935

Properties provided are only typical values and Americhem assumes no liability for the customer's use of the information provided. The customer assumes all responsibility for testing determining this products suitability in the customer's specific end application.

Revision Date: 9/16/2024

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Polyetherimide

Injection	Nominal Value	Unit
Drying Temperature	149	°C
Drying Time	4.0	hr
Processing (Melt) Temp	360 to 379	°C
Mold Temperature	149	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.038 to 0.076	mm

Notes

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

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