Hepla® H9000GF CF H

Material Description:

Hepla® H9000GF CF H is a carbon fiber and glass-reinforced, heat-stabilized grade of polyphthalamide (PPA). It is formulated for applications requiring the dissipation of static charge. This material is well suited for fuel systems applications requiring low permeation, low swell, and high thermal resistance. It can also be used for components of electrical/electronic systems requiring high strength and stiffness, as well as static charge dissipation.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Glass\Carbon Fiber	
Additive	• Heat Stabilizer	
Features	• Chemical Resistant	• Creep Resistant
	• Good Dimensional Stability	• Good Stiffness
	• High Heat Resistance	• High Stiffness
	• High Temperature Strength	• Low Moisture Absorption
Uses	• Automotive Applications	• Automotive Electronics
	• Automotive Under the Hood	• Connectors
	• Electrical/Electronic Applications	• Fuel Lines
Appearance	• Black	
RoHS Compliance	• RoHS Compliant	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.32	g/cm^3	ISO 1183
Molding Shrinkage			ISO 294-4
Flow	0.6	%	
Across Flow	0.4	%	
Water Absorption (24 hr, 50.8 mm)	0.32	%	ASTM D570

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus			
	15200	MPa	ASTM D638
	15000	MPa	ISO 527-2
Tensile Strength	205	MPa	ASTM D638,ISO 527-2
Tensile Elongation			
Break	2.5	%	ASTM D638
Break	2.4	%	ISO 527-2
Flexural Modulus	13500	MPa	ISO 178
Flexural Stress	300	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact			
	120	J/m	ASTM D256
-40℃	8	kJ/m^2	ISO 180
23℃	11	kJ/m^2	ISO 180
Unnotched Izod Impact			ISO 180
-40℃	50	kJ/m^2	
23℃	50	kJ/m^2	

Electrical Properties	Typical Value	Unit	Test Method
Volume Resistivity(50V)	2.40E+03	Ohms·cm	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	285	℃	ISO 75-2/B
1.8 MPa, Unannealed	270	℃	ASTM D648
1.8 MPa, Unannealed	275	℃	ISO 75-2/A

Processing Information	Typical Value	Unit
Processing (Melt) Temp	320 to 330	℃
Mold Temperature	135	℃
Drying Temperature	100	℃
Drying Time	4	hr
Suggested Max Moisture	0.06	%
Rear Temperature	310	℃
Front Temperature	320	℃

CAUTION/警告!

Before using, read the Molding Guide, Material Safety Data Sheets, and Bulletins available from NFD Advanced Composites Sales offices and Distributors supplied to your company. Caution! During drying, purging and molding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat. Use adequate local exhaust ventilation during thermal processing. To prevent resin decomposition, do not contaminate the resin or exceed the recommended melt temperature or hold-up time. Avoid inhalation or skin and eyes contact. Sweep up and dispose of spilled resin to eliminate slipping hazard.
在使用之前，请阅读NFD公司销售办事处和经销商提供给贵公司的材料成型指南 、材料安全数据表和公告。警告！ 在干燥、吹扫和成型过程中，少量有害气体或颗粒物质可能会在被释放，这些可能会刺激眼睛，鼻子和喉咙。热处理过程中请注意做好排气通风工作 。为防止树脂分解，请勿污染树脂或超过我们为您推荐的熔融温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂，以消除滑到的危险。

LEGAL NOTICES/法律声明

The figures indicated here are approximate values. They may be affected by different factors, and the user is not released therefore from the obligation of performing checks and trials of his own. The values indicated here have been compiled on the basis of current tests and findings. Any legally binding guarantee of certain properties, or any suitability for a specific application can not be inferred from the present data. For detailed production regulatory information, contact customer service.
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