Hepla® H9015GF T H

Material Description:

Hepla ® H9015GF T H is a 15% glass-fiber reinforced, toughened grade of polyphthalamide (PPA) resin. This grade was developed for automotive snap-fit electronic connectors. It offers high flow and short molding cycles.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Glass Fiber, 15% Filler by Weight	
Additive	• Heat Stabilizer	• Impact Modifier
	• Lubricant	• Mold Release
Features	• Fast Molding Cycle	• Good Mold Release
	• Heat Stabilized	• High Elongation
	• High Flow	• Impact Modified
	• Lubricated	
Uses	• Automotive Applications	• Automotive Electronics
	• Automotive Under the Hood	• Connectors
	• General Purpose	• Housings
	• Industrial Applications	• Industrial Parts
	• Machine/Mechanical Parts	• Metal Replacement
	• Valves/Valve Parts	
Appearance	• Natural Color	• Black
RoHS Compliance	• RoHS Compliant	
Forms	• Pellets	
Processing Method	• Water-Heated Mold Injection Molding	
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.22	g/cm^3	ISO 1183/A
Molding Shrinkage			ASTM D955
Flow	1	%	
Across Flow	1.1	%	
Water Absorption (24 hr)	0.2	%	ASTM D570

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus			
	5380	MPa	ASTM D638
23℃	5200	MPa	ISO 527-2
100℃	3100	MPa	ISO 527-2
Tensile Stress			
Break,23℃	126	MPa	ISO 527-2
Break,100℃	68.3	MPa	ISO 527-2
	122	MPa	ASTM D638
Tensile Elongation			
Break	3.4	%	ASTM D638
Break,23℃	4.1	%	ISO 527-2
Break,100℃	7.7	%	ISO 527-2
Flexural Modulus			
	4410	MPa	ASTM D790
23℃	4270	MPa	ISO 178
100℃	2340	MPa	ISO 178
Flexural Strength			

	165	MPa	ASTM D790
23℃	170	MPa	ISO 178
100℃	66.9	MPa	ISO 178
Compressive Strength	100	MPa	ASTM D695
Shear Strength	56.5	MPa	ASTM D732

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact			
	91	J/m	ASTM D256
23℃	12	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength			
	850	J/m	ASTM D256
23℃	55	kJ/m^2	ISO 180/1U
Charpy Notched Impact Strength 23℃	11	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength 23℃	76	kJ/m^2	ISO 179/1eU

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Annealed	298	℃	ASTM D648
1.8 MPa, Unannealed	251	℃	ISO 75-2/A
1.8 MPa, Annealed	260	℃	ASTM D648
Melting Temperature	305	℃	ASTM D3418,ISO 11357-3
CLTE			ASTM E831
Flow : 0 to 100℃	2.20E-05	cm/cm/℃	
Flow : 100 to 200℃	3.00E-05	cm/cm/℃	
Transverse : 0 to 100℃	9.00E-05	cm/cm/℃	
Transverse : 100 to 200℃	1.20E-04	cm/cm/℃	

Processing Information	Typical Value	Unit
Processing (Melt) Temp	321 to 335	℃
Drying Temperature	110	℃
Drying Time	4	hr
Suggested Max Moisture	0.045	%
Rear Temperature	316 to 324	℃
Front Temperature	327 to 332	℃
Mold Temperature	66 to 93	℃

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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