

Matreial Data Sheet

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

Hepla® H7220GF

Material Description:

Hepla® H7220GF is a Polyamide 66 (Nylon 66) product filled with 20% glass fiber. suitable for mouldings with high strength and toughness also at minus temperatures. Used in the automotive, engineering and electrical industry. With the increasing content of GF also the toughness, tensile and bending strength increase, the shrinkage decreases and the heat application increases up to 250°C. Application: hobby tools, covers of electrotools, electromotors, cooling screws of blowers, gear wheels, carrying parts in the automotive industry like.

General		
Material Status	 Commercial: Active 	
	Asia Pacific	North America
Availability	• Europe	 Latin America
	Middle East	Africa
Filler/Reinforcement	 Glass Fiber, 20% Filler by Weight 	
	Chemically Coupled	 High Strength
Features	 Good Toughness 	 Low Temperature Toughness
	Vibration Damping	
Uses	 Gears 	 Power/Other Tools
Appearance	 Colors Available 	 Natural Color
Processing Method	 Injection Molding 	

Physical Properties	Typical Value	Unit	Test Method
Density	1.32	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) 275℃/0.325 kg	3	g/10 min	ISO 1133
Molding Shrinkage			STM 64 0808
Across Flow	0.19	%	
Flow	0.79	%	
Water Content	0.15	%	ISO 960

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	12000	MPa	ISO 527-2
Tensile Stress (Yield)	150	MPa	ISO 527-2
Tensile Strain (Yield)	3	%	ISO 527-2
Flexural Modulus	11300	MPa	ISO 178
Flexural Stress	230	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-20℃	8	kJ/m²	
23℃	9	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179
-20℃	45	kJ/m²	
23℃	50	kJ/m²	

Flammability	Typical Value Unit	Test Method
Flame Rating	НВ	UL 94
Glow Wire Ignition Temperature	650 ℃	IEC 60695-2-13

Thermal Properties	Typical Value	Unit	Test Method
Heat Deflection Temperature 0.45 MPa, Unannealed	250	$^{\circ}$	ISO 75-2/B
Vicat Softening Temperature	250	${\mathbb C}$	ISO 306/B
Melting Temperature (DSC)	260	$^{\circ}\!\mathbb{C}$	ISO 3146

Injection	Typical Value	Unit
Drying Temperature	80	$^{\circ}$ C
Drying Time	4	hr
Processing (Melt) Temp	280 to 300	$^{\circ}$
Mold Temperature	60 to 90	$^{\circ}$
Injection Pressure	70.0 to 120	MPa

NFD ADVANCED COMPOSITES

Hepla® H7220GF

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。

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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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