

Heppla® H9050LGF H

Material Description:

Heppla® H9050LGF H is 50% long glass fiber reinforced, easy-flowing PPA which can be processed on most injection molding machines. This material achieves extremely high mechanical and thermal properties, in combination with ease of processing and fast cycle times. It exhibits high strength, stiffness and impact strength at high temperatures; excellent creep and fatigue resistance; isotropic mechanical properties and reduced anisotropic shrinkage; high shear strength and high burst pressure; and an excellent surface finish.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • Middle East • North America • Latin America • Africa
Filler/Reinforcement	• Long Glass Fiber, 50% Filler by Weight
Features	• Creep Resistant • Fatigue Resistant • High Temperature Stiffness • Low Friction • Low Warp • Electrically Insulating • High Impact Resistance • Low CLTE • Low Shrinkage
Uses	• Aircraft Applications • Consumer Applications • Automotive Applications • Industrial Applications
Appearance	• Black • Natural Color
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.61	g/cm ³	ISO 1183
Molding Shrinkage	0.25	%	Internal Method
Water Absorption Equilibrium, 23°C, 50% RH	0.8	%	ISO 62

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus			ISO 527-2
23°C	18856	MPa	
90°C	16804	MPa	
120°C	10798	MPa	
Tensile Stress			ISO 527-2
Break, 23°C	279	MPa	
Break, 90°C	214	MPa	
Break, 120°C	138.5	MPa	
Tensile Strain(Break)	1.9	%	ISO 527-2
Flexural Modulus(23°C)	17845	MPa	ISO 178
Flexural Stress	417	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Impact Strength 23°C	52.6	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength 23°C	79	kJ/m ²	ISO 179

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	1.00E+13	Ohms-cm	ASTM D257
Electric Strength	35	kV/mm	IEC 60243-1

Comparative Tracking Index	600	V	IEC 60112
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Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	300	°C	ISO 75-2/B
1.8 MPa, Unannealed	285	°C	ISO 75-2/A
Coefficient of Linear Thermal Expansion	2.00E-05	cm/cm/°C	ISO 7991
Thermal Conductivity	0.35	W/m/K	ISO 22007

Processing Information	Typical Value	Unit
Processing (Melt) Temp	< 345	°C
Mold Temperature	130 to 160	°C
Drying Temperature	120	°C
Drying Time	4	hr
Suggested Max Moisture	0.06	%
Suggested Max Regrind	20	%
Rear Temperature	320 to 340	°C
Middle Temperature	325 to 340	°C
Front Temperature	325 to 340	°C
Nozzle Temperature	325 to 340	°C

NFD ADVANCED COMPOSITES

Hepla® H9050LGF H

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热融温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂，以消除滑倒的危险。

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.

上列数据仅作参考用途，它们可能会受不同因素的影响，使用者有责任通过实验自行确定材料特性。上述资料根据现有测试得出，对物料特性是否适合某特殊用途及特性不能给予保证，数据也没有任何法律约束力。更多有关详细的产品监管信息，请联系客户服务

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