

## Hepia® H9050GF

### Material Description:

Hepia® H9050GF is a 50% glass fibre reinforced polyphthalamide(PPA) with very high rigidity and strength, as well as high temperature and chemical resistance.Applications:Parts with tight dimensional tolerances even under high mechanical load.

### General

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>Asia Pacific</li> <li>Europe</li> <li>Middle East</li> <li>North America</li> <li>Latin America</li> <li>Africa</li> </ul>
Filler/Reinforcement	<ul style="list-style-type: none"> <li>Glass Fibr, 50% Filler by Weight</li> </ul>
Features	<ul style="list-style-type: none"> <li>Chemical Resistant</li> <li>Good Dimensional Stability</li> <li>High Strength</li> <li>High Heat Resistance</li> <li>High Rigidity</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Black</li> </ul>

Physical Properties	Typical Value	Unit	Test Method
Density (23°C)	1.62	g/cm <sup>3</sup>	ISO 1183
Spiral Flow <sup>1</sup>			NFD Method
-- <sup>2</sup>	12	cm	
-- <sup>3</sup>	32	cm	
Molding Shrinkage			ISO 294-4
Across Flow	0.7	%	
Flow	0.3	%	
Humidity Absorption - 62% RH (70°C)	0.9	%	ISO 1110

Hardness	Typical Value	Unit	Test Method
Ball Indentation Hardness (H 961/30)	360	MPa	ISO 2039-1

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	20700	MPa	ISO 527-2/1
Tensile Stress (Break)	276	MPa	ISO 527-2/5
Tensile Strain (Break)	2.2	%	ISO 527-2/5
Flexural Modulus <sup>4</sup>	18500	MPa	ISO 178
Flexural Stress <sup>4</sup>	387	MPa	ISO 178
Flexural Strain at Break <sup>5</sup>	2.5	%	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	14.3	kJ/m <sup>2</sup>	
23°C	14.3	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	71	kJ/m <sup>2</sup>	
23°C	92	kJ/m <sup>2</sup>	

Electrical Properties	Typical Value	Unit	Test Method
Comparative Tracking Index Solution A	600	V	IEC 60112

Thermal Properties	Typical Value	Unit	Test Method
Heat Deflection Temperature 0.45 MPa, Unannealed	310	°C	ISO 75-2/B

1.8 MPa, Unannealed	285 °C	ISO 75-2/A
8.0 MPa, Unannealed	230 °C	ISO 75-2/C
Melting Temperature <sup>6</sup>	313 °C	DIN EN 11357-1
Temperature Index		IEC 60216
50% Loss of Tensile Strength 20000 hr	150 to 160 °C	
50% Loss of Tensile Strength 5000 hr	170 to 180 °C	

Flammability	Typical Value	Unit	Test Method
Burning Rate <sup>7</sup> (1.00 mm)	< 100	mm/min	FMVSS 302
Flame Rating (0.8 mm)	HB		UL 94
Glow Wire Flammability Index 1.6 mm	960	°C	IEC 60695-2-12

Additional Information	Typical Value	Unit	Test Method
Reinforcement Content	50	%	ISO 1172

#### Notes

<sup>1</sup> Mold Temperature: 130°C, Melt Temperature: 340°C, Injection Pressure: 750 bar

<sup>2</sup> cross section of flow spiral: 8.4 mm x 1 mm

<sup>3</sup> cross section of flow spiral: 8.4 mm x 2 mm

<sup>4</sup> 2.0 mm/min

<sup>5</sup> 2 mm/min

<sup>6</sup> 10°C/min

<sup>7</sup> >1 mm

## NFD ADVANCED COMPOSITES

Hepla® H9050GF

### 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熔温度或时间。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.

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### COMPANY/公司:

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感谢您访问新孚达 (NFD)！我们秉承“New Formula Designer”的发展理念，将科研创新与生产应用紧密相连，无论您是设计师、工程师或者是采购专家，我们都可以帮助您拓展业务并获得新的灵感。我们坚持诚信、合作、效率、创新的核心价值观，始终把客户放在第一位。相比于我们的竞争对手，我们专注于为您提供更先进的技术配方、更优质的产品，更好的解决方案及更周到的售后服务，我们懂市场、我们懂产品、我们更懂你们。

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