

Hepla® H2040GF

Material Description:

Hepla® H2040GF is a Polyphenylene Ether(PPE) product filled with 40% glass fiber,High rigidity,Excellent chemical and high heat resistance. Application: under the bonnet.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• North America	
	• Europe	• Latin America	
	• Middle East	• Africa	
Filler/Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Electrical Insulation	• Hydrolysis Stable	
	• Good Dimensional Stability	• Creep Resistant	
	• Heat Resistant		
Uses	• Automotive Under the Hood		
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Physical Properties	Typical Value	Unit	Test Method
Specific Gravity	1.45	g/cm ³	ASTM D792, ISO 1183
Moisture Absorption (Equilibrium, 23°C, 50% RH)	0.3	%	ISO 62
Moisture Absorption (23°C, 50% RH)	0.1	%	ASTM D570
Molding Shrinkage - Flow (3.20 mm)	0.24 to 0.27	%	NFD Method
Molding Shrinkage - Across Flow (3.20 mm)	0.60 to 0.63	%	NFD Method
Melt Volume-Flow Rate (MVR) (220°C/5.0 kg)	10	cm ³ /10min	ISO 1133

Hardness	Typical Value	Unit	Test Method
Rockwell Hardness (R-Scale)	108		ASTM D785

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	14079	MPa	ISO 527-2/1
Tensile Modulus, 5.0 mm/min	13731	MPa	ASTM D638
Tensile Stress, break, Type I 5.0 mm/min	182	MPa	ASTM D638
Tensile Strain, break, Type I 5.0 mm/min	1.8	%	ASTM D638
Tensile Stress, break	200.7	MPa	ISO 527-2/5
Tensile Strain, break	1.8	%	ISO 527-2/5
Flexural Modulus, 2.0 mm/min	12054	MPa	ISO 178
Flexural Modulus, 50.0 mm Span 1.3 mm/min	11699	MPa	ASTM D790
Flexural Stress, yield 2.0 mm/min	278	MPa	ASTM D790
Flexural Stress, yield 50.0 mm Span, 1.3 mm/min	247	MPa	ASTM D790

Impact Properties	Typical Value	Unit	Test Method
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Charpy Notched Izod Impact 80*10*4, 23℃	10.8	kJ/m ²	ISO 179/1eA
Charpy Notched Izod Impact -30℃	10.8	kJ/m ²	ISO 179/2C
Notched Impact Strength -30℃	91.5	J/m	ASTM D256
Notched Impact Strength 23℃	95.9	J/m	ASTM D256

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.8MPa, Unannealed, 6.40 mm	247	℃	ASTM D648
0.45 MPa, Unannealed, 6.40 mm 64.0 mm Span, 80*10*4 mm	260	℃	ASTM D648
1.8 MPa, Unannealed 64.0 mm Span, 80*10*4 mm	244	℃	ISO 75-2/Af
Vicat Softening Temperature	246	℃	ISO 306/B50, ISO 306/B120
CLTE			ASTM E831
Flow : -40 to 40℃	1.6E-5 to 2.0E-5	1/℃	
Transverse : -40 to 40℃	9.0E-5 to 9.4E-5	1/℃	

Processing Information	Typical Value	Unit
Suggested Shot Size	30 to 50	%
Drying Time, Maximum	8	hr
Back Pressure	0.345 to 1.38	MPa
Screw Speed	20 to 100	rpm
Vent Depth	0.013 to 0.038	mm

NFD ADVANCED COMPOSITES Hepla® H2040GF

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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