New Formula Designer

Matreial Data Sheet

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

Hepla® H2000

Material Description:

Hepla ® H2000 is a unreinforced Polyphenylene Ether(PPE) product.Characteristics include:RoHS Compliant.A new high flow designed for under-the-hood applications such as power distribution boxes,relay boxes and junction boxes.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Features	• High Flow	• Hydrolysis Stable
	• Electrical Insulation	• Good Dimensional Stability
	• Creep Resistant	• Heat Resistant
Uses	• Automotive Under the Hood	
RoHS Compliance	• RoHS Compliant	

Physical Properties	Typical Value	Unit	Test Method
Specific Gravity	1.1	g/cm^3	ASTM D792
Moisture Absorption (24 hr, 23℃, 50% RH)	0.39	%	ISO 62
Moisture Absorption (24 hr, 23℃)	2	%	ISO 62
Molding Shrinkage - Flow (24 hr)	1.4 to 1.7	%	ASTM D955
Molding Shrinkage Across Flow (24 hr)	1.2 to 1.5	%	ASTM D955
Melt Mass-Flow Rate (MFR) 280℃/2.16 kg	23	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) 280℃/5.0 kg	64	g/10 min	ASTM D1238

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 50 mm/min	2417	MPa	ASTM D638
Tensile Stress, yield, Type I 5.0 mm/min	67.8	MPa	ASTM D638
Tensile Stress, break, Type I 5.0 mm/min	58.5	MPa	ASTM D638
Tensile Strain, yield, Type I 5.0 mm/min	4.8	%	ASTM D638
Tensile Strain, break, Type I 5.0 mm/min	54	%	ASTM D638
Tensile Stress, yield	65	MPa	ISO 527-2/5
Tensile Strain, break	50	%	ISO 527-2/5
Flexural Modulus, 2.0 mm/min	2176	MPa	ISO 178
Flexural Modulus 100 mm Span, 2.6 mm/min	2367	MPa	ASTM D790
Flexural Stress, yield 2.0 mm/min	96.5	MPa	ISO 178
Flexural Stress, break 100 mm Span, 1.3 mm/min	98	MPa	ASTM D790

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Izod Impact 23℃	20.5	kJ/m^2	ISO 179/2C
Charpy Notched Izod Impact	10.8	kJ/m^2	ISO 179/2C

-20℃	10.6	kJ/m	ISO 179/2C
Notched Izod Impact, 23℃	207	J/m	ASTM D256
Notched Izod Impact, -30℃	99	J/m	ASTM D256
Notched Izod Impact 80*10*4 , 23℃	13.8	kJ/m^2	ISO 180/4A
Notched Izod Impact 80*10*4 ,-30℃	8	kJ/m^2	ISO 180/4A
Instrumented Dart Impact, -30℃ Energy at Peak Load	32	J/m	ASTM D3763
Instrumented Dart Impact, 23℃ Energy at Peak Load	48	J/m	ASTM D3763

Electrical Properties	Typical Value	Unit	Test Method
Dielectric Strength (1.60 mm, in Oil)	22.1	kV/mm	ASTM D149
Dissipation Factor (1 MHz)	0.017		ASTM D150

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed 100 mm Span, 120*10*4 mm	181	℃	ISO 75-2/Be
0.45 MPa, Unannealed, 6.40 mm	196	℃	ASTM D648
CLTE - Flow (-40 to 40℃)	9.00E-05	1/℃	ASTM E831
CLTE - Flow (60 to 138℃)	1.70E-04	1/℃	ASTM E831
CLTE - Transverse (-40 to 40℃)	8.50E-05	1/℃	ASTM E831
CLTE - Transverse (60 to 138℃)	1.50E-04	1/℃	ASTM E831

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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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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