

Hepla® H2000 EC

Material Description:

Hepla® H2000 EC is a conductive and high heat material, especially designed for in- and on-line painted bodypanels and fenders in particular. This material combines impact performance with conductivity for electro-static painting in an unique way.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Features	• Conductive	• High Heat Resistance
	• Paintable	• Good Impact Resistance
	• Hydrolysis Stable	• Good Dimensional Stability
	• Creep Resistant	
Uses	• Automotive Exterior Parts	• Automotive Applications
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Specific Gravity	1.08	g/cm ³	ASTM D792
Specific Gravity	1.08	g/cm ³	ISO 1183
Moisture Absorption (Equilibrium, 23°C, 50% RH)	1.2	%	ISO 62
Moisture Absorption (Saturation, 23°C)	4.2	%	ISO 62
Molding Shrinkage - Flow (3.20 mm)	1.2 to 1.6	%	NFD Method
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/5.0 kg)	19	cm ³ /10min	ISO 1133

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	2179	MPa	ISO 527-2/1
Tensile Modulus, 5.0 mm/min	2105	MPa	ASTM D638
Tensile Stress, yield, Type I 5.0 mm/min	64	MPa	ASTM D638
Tensile Stress, break, Type I 5.0 mm/min	59.2	MPa	ASTM D638
Tensile Strain, yield, Type I 5.0 mm/min	5.1	%	ASTM D638
Tensile Strain, break, Type I 5.0 mm/min	45.4	%	ASTM D638
Tensile Stress, yield	59.2	MPa	ISO 527-2/5
Tensile Stress, break	54.5	MPa	ISO 527-2/5
Tensile Strain, yield	5.2	%	ISO 527-2/5
Tensile Strain, break	40.3	%	ISO 527-2/5
Flexural Modulus, 2.0 mm/min	2437	MPa	ISO 178
Flexural Modulus 50.0 mm Span, 1.3 mm/min	2597	MPa	ASTM D790
Flexural Stress, yield 2.0 mm/min	91.1	MPa	ISO 178

Flexural Stress, break 50.0 mm Span, 1.3 mm/min	96.4 MPa	ASTM D790
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Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	245	J/m	ASTM D256
Notched Izod Impact, -30°C	183	J/m	ASTM D256
Notched Izod Impact 80*10*4, 23°C	22.5	kJ/m ²	ISO 180/1A
Notched Izod Impact 80*10*4, -30°C	15.2	kJ/m ²	ISO 180/1A
Charpy Notched Impact Strength 80*10*4, 23°C	22.5	kJ/m ²	ISO 179/1eA
Charpy Notched Impact Strength 80*10*4, -30°C	15	kJ/m ²	ISO 179/1eA
Instrumented Dart Impact 23°C, Total Energy	60	J	ASTM D3763

Electrical Properties	Typical Value	Unit	Test Method
Volume Resistivity	1E+3 to 1E+4	ohms•cm	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed 100 mm Span, 120*10*4 mm	190	°C	ISO 75-2/Be
0.45MPa, Unannealed, 3.2mm	190	°C	ASTM D648
Vicat Softening Temperature	195	°C	ASTM D1525
Vicat Softening Temperature	195	°C	ISO 306/B50
Vicat Softening Temperature	200	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	8.50E-05	1/°C	ASTM E831
Transverse : -40 to 40°C	9.00E-05	1/°C	ASTM E831
Flow : 23 to 60°C	8.50E-05	1/°C	ISO 11359-2
Transverse : 23 to 60°C	9.00E-05	1/°C	ISO 11359-2

Processing Information	Typical Value	Unit
Maximum Moisture Content	0.07	%
Hopper Temperature	60 to 80	%
Melt Temperature	290 to 318	°C
Nozzle Temperature	280 to 308	°C
Mold Temperature	80 to 120	°C
Drying Temperature	100 to 120	°C
Drying Time	2 to 3	hr
Front Temperature	290 to 318	°C
Middle Temperature	280 to 298	°C
Rear Temperature	260 to 278	°C

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

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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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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