

## Heppla® H1100 H FR

### Material Description:

Heppla® H1100 H FR is a unreinforced Acrylonitrile Butadiene Styrene (ABS) product.Characteristics include:Characteristics include: Flame Rated,Heat Resistant,Weather Resistant.

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific
	• Europe
	• Middle East
Features	• High Heat Resistance
	• Impact Resistant
	• Flame Rated
	• Good Processability
	• Good Dimensional Stability
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity 23°C	1.19	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) 200°C/5.0 kg	2.8	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) 220°C/10.0 kg	27	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage	0.3 to 0.6	%	ISO 294-4

Hardness	Typical Value	Unit	Test Method
Rockwell Hardness (R-Scale)	98		ASTM D785

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Strength			
Yield, 6.0 mm/min	39.5	MPa	ASTM D638
Yield	38.7	MPa	ISO 527-2/50
Break	29.6	MPa	ISO 527-2/50
Tensile Elongation			
Break, 6.0 mm/min	29.2	%	ASTM D638
Break	14.5	%	ISO 527-2/50
Flexural Modulus			
2.8 mm/min	2503	MPa	ASTM D790
2.0 mm/min	2087	MPa	ISO 178
Flexural Strength			
2.8 mm/min	62	MPa	ASTM D790
2.0 mm/min	59.4	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	11.8	kJ/m <sup>2</sup>	
23°C	21.5	kJ/m <sup>2</sup>	
Notched Izod Impact			
23°C, 3.20 mm	223	J/m	ASTM D256
-30°C	10.8	kJ/m <sup>2</sup>	ISO 180/1A
23°C	20.6	kJ/m <sup>2</sup>	ISO 180/1A

Flammability	Typical Value	Unit	Test Method
Flame Rating			UL 94
1.5mm	V-0		
2.5mm	5VA		

Thermal Properties	Typical Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	85	°C	ASTM D648
1.8 MPa, Unannealed	86	°C	ISO 75-2/A
1.8 MPa, Annealed	96	°C	ASTM D648,ISO 75-2/A
Vicat Softening Temperature			
	104	°C	ASTM D1525 <sup>1</sup>
	103	°C	ISO 306/A50
	96	°C	ISO 306/B50
CLTE - Flow	8.50E-05	cm/cm/°C	ISO 11359-2

Processing Information	Typical Value	Unit
Rear Temperature	180 to 210	°C
Middle Temperature	190 to 220	°C
Front Temperature	190 to 220	°C
Mold Temperature	40 to 70	°C
Drying Temperature	80 to 85	°C
Drying Time	2 to 4	hr
Injection Pressure	4.9 to 7.85	MPa
Holding Pressure	1.96 to 4.9	MPa
Back Pressure	0.49 to 0.981	MPa

#### NOTES:

<sup>1</sup>Rate A (50°C/h), Loading 1 (10 N)

#### NFD ADVANCED COMPOSITES

Hepla® H1100 H FR

#### 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.

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。

#### COMPANY/公司:

Welcome to NFD, where the concept of "New Formula Designer" is upheld and scientific innovation and production are intertwined. Whether you are a designer, engineer or procurement expert, we can help you expand your business and get new inspiration. We adhere to the core values of credibility and integrity, cooperation, efficiency, and innovation, and always put our customers first. Compared with our competitors, we focus on providing more advanced technical formulation, better quality products, more efficient solutions and more thoughtful after-sales services. We understand the markets, the products, and you even more.

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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