

**Matreial Data Sheet** 

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

# Hepla® H7100 TC I

## Material Description:

Hepla ® H7100 TC I is a unreinforced Polyamide 6 (Nylon 6) product. Characteristics include: Thermally Conductive , Electrically Insulative

Material Status	<ul> <li>Commercial: Active</li> </ul>	
	Asia Pacific	<ul> <li>North America</li> </ul>
Availability	• Europe	<ul> <li>Latin America</li> </ul>
	Middle East	Africa
Features	Electrically Insulating	<ul> <li>Thermally Conductive</li> </ul>
	<ul> <li>Good Processability</li> </ul>	<ul> <li>Chemical Resistant</li> </ul>
	Wear Resistant	<ul> <li>Self-Lubricating</li> </ul>
RoHS Compliance	RoHS Compliant	
Processing Method	<ul> <li>Injection Molding</li> </ul>	

Physical Properties	Typical Value Unit	Test Method
Density/Specific Gravity	1.51 g/cm	3 ASTM D792
Moisture Content	0.2 %	

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	6991	MPa	ASTM D638
Tensile Strength	76.5	MPa	ASTM D638
Tensile Elongation(Yield)	1.9	%	ASTM D638
Flexural Modulus	6991	MPa	ASTM D790
Flexural Strength	132.7	MPa	ASTM D790

Impact Properties	Unit	Test Method
Notched Izod Impact(3.2mm)	26.8 J/m	ASTM D256
Unnotched Izod Impact(3.2mm)	426 J/m	ASTM D4812

<b>Electrical Properties</b>	Typical Value	Unit	Test Method
Surface Resistivity	>1.0E+14	Ohms·cm	ASTM D257
Dielectric Strength <sup>1</sup> (in Oil)	15	kV/mm	ASTM D149

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load	171	<b>°</b> C	ASTM D648
1.8 MPa, Unannealed	1/1	C	A31W D040
Thermal Conductivity			
Through-plane	0.5	W/m/K	ASTM E1530
In-plane	1.1	W/m/K	ASTM E1461

Processing Information	Typical Value	Unit	
Injection Pressure	68.9 to 103	MPa	
Processing (Melt) Temp	243 to 279	$^{\circ}\!\mathbb{C}$	
Mold Temperature	54 to 93	$^{\circ}\!\mathbb{C}$	
Drying Temperature	82	$^{\circ}\!\mathbb{C}$	
Drying Time	2	hr	
Dew Point	-18	$^{\circ}$	

### NOTES:

<sup>&</sup>lt;sup>1</sup> Method A (Short-Time)

## NFD ADVANCED COMPOSITES

Hepla® H7100 TC I

#### 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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