

Hepla® H1100 GF ES

Material Description:

Hepla® H1100 GF ES is a compound based on Acrylonitrile Butadiene Styrene resin containing Glass Fiber. Added features of this material include: Antistat.

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Glass Fiber	
Additive	• Antistatic	
Features	• Antistatic	• Good Dimensional Stability
	• Impact Resistant	• Good Processability
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.29	g/cm ³	ASTM D792
	1.28	g/cm ³	ISO 1183
Molding Shrinkage			
Flow: 24 hr	0.2 to 0.4	%	ASTM D955
Across Flow: 24 hr	0.4 to 0.6	%	ASTM D955
Across Flow: 24 hr	0.45	%	ISO 294-4
Flow: 24 hr	0.3	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	3	%	ASTM D570

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus 50 mm/min	6702	MPa	ASTM D638
	5824	MPa	ISO 527-2/1
Tensile Strength			
Yield	38	MPa	ASTM D638
Yield	42.1	MPa	ISO 527-2
Break	38	MPa	ASTM D638
Break	42.1	MPa	ISO 527-2
Tensile Elongation			
Yield	1.1	%	ASTM D638
Yield	1.2	%	ISO 527-2
Break	1.1	%	ASTM D638
Break	1.2	%	ISO 527-2
Flexural Modulus	5355	MPa	ASTM D790
	5512	MPa	ISO 178
Flexural Strength	47.6	MPa	ASTM D790
	62	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact(3.2mm) 23°C	49.2	J/m	ASTM D256
	5.1	kJ/m ²	ISO 180/1A
Unnotched Izod Impact(3.2mm)			

23°C	257 J/m	ASTM D4812
23°C,80*10*4	17.4 kJ/m ²	ISO 180/1A
Instrumented Dart Impact		
23°C, Energy at Peak	7 J	ASTM D3763
--	1.8 J	ISO 6603-2

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	1.0E+10 to 1.0E+12	ohms	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed,3.2 mm	102	°C	ASTM D648
0.45 MPa, Unannealed,64 mm	103	°C	ISO 75-2/Bf
1.8 MPa, Unannealed,3.2 mm	95.6	°C	ASTM D648
1.8 MPa, Unannealed,64 mm	71	°C	ISO 75-2/A
CLTE			ASTM E831,ISO 11359-2
Flow:-40 to 40°C	1.10E-04	cm/cm/°C	
Transverse:-40 to 40°C	4.30E-05	cm/cm/°C	

Processing Information	Typical Value	Unit
Processing (Melt) Temp	199 to 210	°C
Mold Temperature	10 to 49	°C
Drying Temperature	71 to 82	°C
Drying Time	4	hr
Suggested Max Moisture	0.05 to 0.1	%
Rear Temperature	182 to 193	°C
Middle Temperature	193 to 204	°C
Front Temperature	204 to 216	°C
Screw Speed	30 to 60	rpm
Back Pressure	0.172 to 0.344	MPa

NFD ADVANCED COMPOSITES Hepla® H1100 GF ES

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。

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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