

Matreial Data Sheet

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

Hepla® H6020GF SF EMI FR

Material Description:

Hepla ® H6020GF SF EMI FR is a Polycarbonate (PC) product filled with 20% glass fiber and stainless steel fiber. Characteristics include:Electrically Conductive,EMI/RFI/ESD Protection,Flame Retardant.

Material Status	General				
Availability		Commercial: Active			
Pubble P	Waterial Ctatae			North America	
Middle East • Africa	Availability				
Glass Fiber, 20% Filler by Weight Stainless Steel Fiber Stainless Stai	Availability				
Satislass Steel Fiber Electromagnetic Shielding (EMI) Electrically Conductive Electromagnetic Shielding (EMI) ESD Protection ESD P			/eight	/ III lea	
Features	Filler/Reinforcement		eigiit		
Peatures			/FN/II)	- Flootrigally Conduction	10
Cood Dimensional Stability Creep Resistant	Factures	<u> </u>	· ,		ve
RoHS Compliance	Features	. ,	· /		
Processing Method • Injection Molding Physical Properties Typical Value Unit Test Method Density/Specific Gravity 1.5 g/cm³ ASTM D792 Moisture Content 0.02 %	D 110 0 1:		/	Creep Resistant	
Physical Properties Typical Value Unit Test Method Density/Specific Gravity 1.5 g/cm³ ASTM D792 Moisture Content 0.02 % * Molding Shrinkage - Flow (3.20 mm) 0.2 to 0.3 % ASTM D955 Mechanical Properties Typical Value Unit Test Method Tensile Modulus 7075 MPa ASTM D638 Tensile Strength 104.6 MPa ASTM D638 Tensile Elongation(Yield) 1.5 to 2.9 % ASTM D638 Flexural Modulus 7075 MPa ASTM D638 Flexural Strength 162 MPa ASTM D790 Impact Properties Typical Value Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 52.2 J/m ASTM D4812 Flammability Typical Value Unit Test Method Volume Resistivity < 1.0E+2	•				
Density/Specific Gravity	Processing Method	Injection Molding			
Density/Specific Gravity	Physical Properties	Typical Value	Unit		Test Method
Moisture Content 0.02 Molding Shrinkage - Flow (3.20 mm) 0.2 to 0.3 Molding Shrinkage - Flow (3.20 mm) ASTM D955 Mechanical Properties Typical Value Unit Test Method Tensile Modulus 7075 MPa ASTM D638 Tensile Strength 104.6 MPa ASTM D638 Flexural Modulus 7075 MPa ASTM D638 Flexural Strength 162 MPa ASTM D790 Impact Properties Typical Value Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 52.2 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 U.94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+4	-				
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Mechanical Properties Typical Value Unit Test Method Tensile Modulus 7075 MPa ASTM D638 Tensile Strength 104.6 MPa ASTM D638 Tensile Elongation(Yield) 1.5 to 2.9 % ASTM D638 Flexural Modulus 7075 MPa ASTM D790 Impact Properties MPa ASTM D790 Impact Properties Typical Value Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flammability Typical Value Unit Test Method Volume Resistivity < 1.0E+2					ΔΩΤΜ ΠΩ55
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Tensile Elongation(Yield) 1.5 to 2.9 % ASTM D638 Flexural Modulus 7075 MPa ASTM D790 Flexural Strength 162 MPa ASTM D790 Impact Properties Typical Value Unit Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 522 J/m ASTM D4812 Flammability Typical Value Impact Value	Tensile Modulus	7075	MPa		ASTM D638
Flexural Modulus 7075 MPa ASTM D790 Flexural Strength 162 MPa ASTM D790 Impact Properties Typical Value Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 522 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 UL 94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+2 Ohms·cm	Tensile Strength	104.6	MPa		ASTM D638
Televiral Strength 162 MPa	Tensile Elongation(Yield)	1.5 to 2.9	%		ASTM D638
Impact Properties Typical Value Unit Test Method Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 522 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 UL 94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+2	Flexural Modulus	7075	MPa		ASTM D790
Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 522 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 UL 94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+2 Ohms·cm	Flexural Strength	162	MPa		ASTM D790
Notched Izod Impact(3.2mm) 52.3 J/m ASTM D256 Unnotched Izod Impact(3.2mm) 522 J/m ASTM D4812 Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 UL 94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+2 Ohms·cm	Impact Properties	Typical Value	Unit		Test Method
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Flammability Typical Value Unit Test Method Flame Rating (1.5mm) V-0 UL 94 Electrical Properties Typical Value Unit Test Method Volume Resistivity < 1.0E+2 Ohms·cm ASTM D257 Surface Resistivity < 1.0E+4 ohms ESD STM11.11 < 1.0E+5 ohms ASTM D257 Static Decay 1 < 2.0 sec FTMS 101C 4046.1 Processing Information Typical Value Unit Injection Pressure 68.9 to 103 MPa Processing (Melt) Temp 277 to 304 °C Mold Temperature 71 to121 °C Drying Temperature 121 °C Drying Time 4 hr					
Flame Rating (1.5mm)V-0UL 94Electrical PropertiesTypical ValueUnitTest MethodVolume Resistivity< 1.0E+2	offilotoled izod impact(3.2mm)	JZZ	J/111		A31W D4012
Electrical PropertiesTypical ValueUnitTest MethodVolume Resistivity< 1.0E+2	Flammability	Typical Value	Unit		Test Method
Volume Resistivity< 1.0E+2Ohms·cmASTM D257Surface Resistivity< 1.0E+4	Flame Rating (1.5mm)	V-0			UL 94
Volume Resistivity< 1.0E+2Ohms·cmASTM D257Surface Resistivity< 1.0E+4	Flectrical Properties	Typical Value	Unit		Test Method
Surface Resistivity < 1.0E+4 ohms					
Composition		\ 1.0L\Z	OHITIS CITI		ASTIVI DZSI
Static Decay ¹ Typical Value Unit Injection Pressure 68.9 to 103 MPa Processing (Melt) Temp 277 to 304 °C Mold Temperature 71 to121 °C Drying Temperature 4 hr	Surface Resistivity	< 1.05 . 4	ohmo		FCD CTM11 11
Static Decay ¹< 2.0secFTMS 101C 4046.1Processing InformationTypical ValueUnitInjection Pressure68.9 to 103MPaProcessing (Melt) Temp277 to 304 ℃Mold Temperature71 to121 ℃Drying Temperature121 ℃Drying Time4 hr					
Processing InformationTypical ValueUnitInjection Pressure68.9 to 103MPaProcessing (Melt) Temp277 to 304℃Mold Temperature71 to121℃Drying Temperature121℃Drying Time4hr	0 1 0 1				
Injection Pressure 68.9 to 103 MPa Processing (Melt) Temp 277 to 304 ℃ Mold Temperature 71 to121 ℃ Drying Temperature 121 ℃ Drying Time 4 hr	Static Decay ¹	< 2.0	sec	F	TMS 101C 4046.1
Injection Pressure 68.9 to 103 MPa Processing (Melt) Temp 277 to 304 ℃ Mold Temperature 71 to121 ℃ Drying Temperature 121 ℃ Drying Time 4 hr	Processing Information	Typical Value	Unit		
Processing (Melt) Temp 277 to 304 °C Mold Temperature 71 to121 °C Drying Temperature 121 °C Drying Time 4 hr	_				
Mold Temperature71 to121℃Drying Temperature121℃Drying Time4hr	<u> </u>				
Drying Temperature 121 °C Drying Time 4 hr					
Drying Time 4 hr					
	Dew Point	-29	℃		

NOTES:

¹ MIL-PRF-81705D, 5kV to 50 V, 12% RH

NFD ADVANCED COMPOSITES

Hepla® H6020GF SF EMI 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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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。

CONTACT:

CHINA/JIANG SU 江苏新孚达复合材料有限公司 NFD Composite Material (Jiangsu) Co., Ltd Email:yanghui@nfdpla.com Internet:www.nfdpla.com

