

Tepla® T8000 CF XC

Material Description:

Tepla® T8000 CF XC is a compound based on Polyetherimide(PEI) resin containing Carbon Fiber. Added features of this material include: Clean Compounding System.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • North America
	• Europe • Latin America
	• Middle East • Africa
Filler/Reinforcement	• Carbon Fiber • Proprietary Fillers
Features	• Clean Compounding System • Fatigue Resistant
	• Steam Resistant • Creep Resistant
	• Chemical Resistant • Flame Retardant
	• Heat Resistant • High Stiffness
	• Wear Resistant • UV Resistant
	• Radiation (Gamma) Resistant • Hydrolysis Stable
	• Good Dimensional Stability • Low Extractable
	• Electric Conduction • Low (to None) Ion Content
Applications	• Hospital Goods • Aircraft Applications
	• Industrial Applications • Medical Devices
	• Connectors • Medical/Healthcare Applications
	• Dental Applications • Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density	1.31	g/cm ³	ASTM D792
Moisture Absorption (24hr, 50% RH)	0.3	%	ASTM D570
Mold Shrinkage			ASTM D955
Flow, 24 hrs	0.2	%	
Across Flow, 24 hrs	0.4	%	
Mold Shrinkage			ISO 294
Flow, 24 hrs	0.17	%	
Across Flow, 24 hrs	0.36	%	
Moisture Absorption (23°C, 50% RH)	0.35	%	ISO 62

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 1 mm/min	12500	MPa	ISO 527
Tensile Modulus, 50 mm/min	11500	MPa	ASTM D638
Tensile Stress, break	161	MPa	ASTM D638
Tensile Strain, break	1.7	%	ASTM D638
Tensile Stress, break	136	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Flexural Modulus	7500	MPa	ISO 178
Flexural Modulus	7800	MPa	ASTM D790
Flexural Stress	214	MPa	ISO 178
Flexural Stress	242	MPa	ASTM D790

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	55	J/m	ASTM D256
Unnotched Izod Impact, 23°C	460	J/m	ASTM D4812
Notched Izod Impact 80*10*4, 23°C	5.2	kJ/m ²	ISO 180/1A

Unnotched Izod Impact 80*10*4, 23°C	28.6	kJ/m ²	ISO 180/1U
Instrumented Impact Total Energy 23°C	11.5	J	ASTM D3763
Multiaxial Impact	2.45	J	ISO 6603

Flame Properties	Typical Value	Unit	Test Method
UL Compliant, 94V-0 Flame Class Rating 0.35mm	V-0		UL 94

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	1E2 to 1E6	Ohm	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.82MPa, Unannealed, 3.2mm	205	°C	ASTM D648
/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Af
CLTE			ASTM E831
-40°C to 40°C, Flow	3.33E-05	cm/cm/°C	
-40°C to 40°C, Xflow	3.29E-05	cm/cm/°C	

Processing Information	Typical Value	Unit
Maximum Moisture Content	0.05	%
Melt Temperature	360 to 365	°C
Drying Temperature	120 to 150	°C
Drying Time	4	hr
Back Pressure	0.344 to 0.689	MPa
Screw Speed	60 to 100	rpm

NFD ADVANCED COMPOSITES

Tepla® T8000 CF XC

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熔温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂, 以消除滑倒的危险。

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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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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