

# Tepla® T2000 CF TF EC

## Material Description:

Tepla® T2000 CF TF EC is a compound based on Polyphenylene Sulfide(PPS) resin containing Carbon Fiber, PTFE. Added features of this material include: Electrically Conductive.

## General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Carbon Fiber	
Additive	• PTFE	
Features	• Electrically Conductive	• 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 Water Absorption
	Applications	• Hospital Goods
• Industrial Applications		• Medical Devices
• Connectors		• Medical/Healthcare Applications
• Dental Applications		• Electrical/Electronic Applications
• RoHS Compliant		
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density	1.55	g/cm <sup>3</sup>	ASTM D792
Density	1.55	g/cm <sup>3</sup>	ISO 1183
Water Absorption			
Equilibrium, 23°C, 50% RH	0.02	%	ISO 62
24 hr, 50% RH	0.02	%	ASTM D570
Mold Shrinkage			ASTM D955
Flow, 24 hrs	0.1	%	
Across Flow, 24 hrs	0.4	%	
Mold Shrinkage			ISO 294
Flow, 24 hrs	0.06	%	
Across Flow, 24 hrs	0.44	%	
Wear Factor Washer	47	10 <sup>-10</sup> -10 in <sup>5</sup> -min/ft-lb-hr	ASTM D3702 Modified
Dynamic COF	0.36		ASTM D3702 Modified
Static COF	0.32		ASTM D3702 Modified

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 1 mm/min	26200	MPa	ISO 527
Tensile Modulus, 50 mm/min	22800	MPa	ASTM D638
Tensile Strength, break	122	MPa	ASTM D638
Tensile Elongation, break	1	%	ASTM D638
Tensile Strength, break	163	MPa	ISO 527
Tensile Elongation, break	1	%	ISO 527
Flexural Modulus	26500	MPa	ISO 178
Flexural Modulus	25300	MPa	ASTM D790
Flexural Strength	257	MPa	ASTM D790
Flexural Strength	263	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	50	J/m	ASTM D256
Unnotched Izod Impact, 23°C	420	J/m	ASTM D4812
Notched Izod Impact 80*10*4, 23°C	5.8	kJ/m <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact 80*10*4, 23°C	24.5	kJ/m <sup>2</sup>	ISO 180/1U
Instrumented Impact Total Energy 23°C	4.5	J	ASTM D3763
Multiaxial Impact	2.19	J	ISO 6603

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.82MPa, Unannealed, 3.2mm HDT/Af,1.8 MPa Flatw 80*10*4 sp=64mm	269	°C	ASTM D648
	265	°C	ISO 75/Af

Processing Information	Typical Value	Unit
Melt Temperature	315 to 320	°C
Mold Temperature	140 to 165	°C
Drying Temperature	120 to 150	°C
Drying Time	4	hr
Front Temperature	330 to 345	°C
Middle Temperature	320 to 330	°C
Rear Temperature	305 to 315	°C
Back Pressure	0.2 to 0.3	MPa
Screw Speed	30 to 60	rpm

## NFD ADVANCED COMPOSITES

Tepla® T2000 CF TF EC

### 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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