

## Tepla® T2010CF 20TF

### Material Description:

Tepla® T2010CF 20TF is a Polyphenylene Sulfide (PPS) product filled with 10% carbon fiber and 20% PTFE. Characteristics include: Lubricated, Wear Resistant.

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • Middle East • North America • Latin America • Africa
Filler/Reinforcement	• Carbon Fiber, 10% Filler by Weight
Additive	• PTFE Lubricant: 20%
Features	• Lubricated • Good Dimensional Stability • Low Moisture Absorption • Good Rigidity • Flame Retardant • Creep Resistant • Wear Resistant
Appearance	• Black
Forms	• Pellets
RoHS Compliance	• Contact Manufacturer
Processing Method	• Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.55	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.19	%	ASTM D955
Water Absorption (24 hr, 23°C)	0.02	%	ASTM D570

Hardness	Typical Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	11800	MPa	ASTM D638
Tensile Strength	142	MPa	ASTM D638
Tensile Elongation(Break)	0.6	%	ASTM D638
Flexural Modulus	9850	MPa	ASTM D790
Flexural Strength	179	MPa	ASTM D790
Compressive Strength	140	MPa	ASTM D695
Coefficient of Friction vs. Metal - Dynamic	0.17		ASTM D1894

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact(3.18mm)	40	J/m	ASTM D256
Unnotched Izod Impact(3.18mm)	332	J/m	ASTM D4812

Flammability	Typical Value	Unit	Test Method
Flame Rating	V-0		UL 94

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	260	°C	
1.8 MPa, Unannealed	254	°C	
CLTE - Flow	2.30E-05	cm/cm/°C	ASTM D696
Thermal Conductivity	0.33	W/m/K	ASTM C177

Processing Information	Typical Value	Unit
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Drying Temperature	149	°C
Drying Time	6	hr
Suggested Max	0.04	%
Suggested Max Re grind	20	%
Rear Temperature	302 to 343	°C
Middle Temperature	302 to 343	°C
Front Temperature	302 to 343	°C
Mold Temperature	135 to 177	°C
Injection Pressure	103 to 138	MPa
Clamp Tonnage	6.9 to 11	kN/cm <sup>2</sup>

#### Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 2.1mil/in.

Tensile Elongation, ASTM D-638: 0-1%

Wear Factor, K, ASTM D-3702: 80E-10in<sup>3</sup>/min/ft/lb/hr

Coefficient of Friction, Dynamic, ASTM D-3702: 0.17

#### 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.

上列数据仅作参考用途，它们可能会受不同因素的影响，使用者有责任通过实验自行确定材料特性。上述资料根据现有测试得出，对物料特性是否适合某特殊用途及特性不能给予保证，数据也没有任何法律约束力。更多有关详细的产品监管信息，请联系客户服务。

#### COMPANY/公司:

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