Tepla® T2030CF SI TF CL EC

Material Description:

Tepla ® T2030CF SI TF CL EC is a compound based on Polyphenylene Sulfide(PPS) resin containing 30% Carbon Fiber, 15% PTFE/Silicone. Added features of this grade include: Internally Lubricated, Bearing Grade, Electrically Conductive.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Carbon Fiber, 30% Filler by Weight	
Features	• PTFE + Silicone Lubricant: 15%	
Features	• Internally Lubricated	• 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	• Bearing Grade
	• Electrically Conductive	• Low Water Absorption
Applications	• Hospital Goods	• Aircraft Applications
	• Industrial Applications	• Medical Devices
	• Connectors	• Medical/Healthcare Applications
	• Dental Applications	• Electrical/Electronic Applications
	• Bearings	
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density	1.51	g/cm^3	ISO 1183
Density	1.54	g/cm^3	ASTM D792
Water Absorption (24hr, 50% RH)	0.022	%	ASTM D570
Water Absorption (Equilibrium,23℃, 50% RH)	0.029	%	ISO 62
Mold Shrinkage			ASTM D955
Flow, 24 hrs	0.2 to 0.3	%	
Across Flow, 24 hrs	0.4 to 0.6	%	
Wear Factor Washer	24	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified
Dynamic COF	0.47		ASTM D3702 Modified
Static COF	0.33		ASTM D3702 Modified

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 50 mm/min	27000	MPa	ASTM D638
Tensile Modulus, 1 mm/min	25000	MPa	ISO 527
Tensile Strength, break, Type I 5 mm/min	163	MPa	ASTM D638
Tensile Elongation, break, Type I 5 mm/min	1	%	ASTM D638
Flexural Modulus, 1.3 mm/min 50 mm span	22300	MPa	ASTM D790
Flexural Stress, yield, 1.3 mm/min 50 mm span	254	MPa	ASTM D790

Flexural Stress, break, 1.3 mm/min 50 mm span	254	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact (23℃)	55	J/m	ASTM D256
Unnotched Izod Impact (23℃)	514	J/m	ASTM D4812
Notched Izod Impact 80*10*4, 23℃	5	kJ/m^2	ISO 180/1A
Unnotched Izod Impact 80*10*4, 23℃	26.8	kJ/m^2	ISO 180/1U
Multiaxial Impact	4.3	J	ISO 6603

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	1.00E+02	ohms	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa,Unannealed, 3.2mm	279	℃	
1.82 MPa, Unannealed, 3.2mm	260	℃	

Processing Information	Typical Value	Unit
Processing (Melt) Temp	315 to 320	℃
Mold Temperature	140 to 165	℃
Drying Temperature	120 to 150	℃
Drying Time	4	hr
Rear Temperature	330 to 345	℃
Middle Temperature	320 to 330	℃
Front Temperature	305 to 315	℃
Back Pressure	0.172 to 0.344	MPa
Screw Speed	30 to 60	rpm

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.
上列数据只作参考用途，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:

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

New Formula Designer