

**Matreial Data Sheet** 

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

# Tepla® T6030GF

## Material Description:

Tepla® T6030GF is a compound based on Polyethersulfone (PES) resin containing 30% Glass Fiber.

General			
Material Status	<ul> <li>Commercial: Active</li> </ul>		
	Asia Pacific		North America
Availability	• Europe		Latin America
	Middle East		Africa
Filler/Reinforcement	<ul> <li>Glass Fiber, 30% Filler by W</li> </ul>	eight eight	
	Low Extractable		Fatigue Resistant
	Steam Resistant		Creep Resistant
	Chemical Resistant		Flame Retardant
- ·	Heat Resistant		High Stiffness
Features	Wear Resistant		UV Resistant
	Radiation (Gamma) Resista		Hydrolysis Stable
	<ul> <li>Good Dimensional Stability</li> </ul>		Good Processability
	Good Mechanical Properties		High Impact Resistance
	Hospital Goods		Aircraft Applications
	Industrial Applications		Medical Devices
Applications	Connectors		Medical/Healthcare Applications
	Dental Applications		Electrical/Electronic Applications
RoHS Compliance	RoHS Compliant		Electrical Electronic Applications
Processing Method	Injection Molding		
1 Toccooning Welfrod	injection wording		
Physical Properties	Typical Value	Unit	Test Method
Density	1.58	g/cm <sup>3</sup>	ASTM D792
Density	1.58	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (24hr, 50% RH)	0.34	%	ASTM D570
Mold Shrinkage			ASTM D955
Flow, 24 hrs	0.3	%	7.67.11. 2000
Transverse Flow, 24 hrs	0.5	%	
Mold Shrinkage	0.0	70	ISO 294
Flow, 24 hrs	0.27	%	100 20 1
Transverse Flow, 24 hrs	0.48	%	
Moisture Absorption			
(Equilibrium,23°C, 50% RH)	0.46	%	ISO 62
Wear Factor Washer	120	10^-10 in^5-r	min/ft-lb-hr ASTM D3702 Modified
Dynamic COF	0.52	1010 111 3-1	ASTM D3702 Modified
Static COF	0.57		ASTM D3702 Modified
Static COF	0.57		ASTIVI DS/02 MOdified
Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 1 mm/min	11200	MPa	ISO 527
Tensile Modulus, 50 mm/min	11900	MPa	ASTM D638
Tensile Stress, break	156	MPa	ASTM D638
Tensile Strain, break	2	%	ASTM D638
Tensile Stress, break	150	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Flexural Modulus	11000	MPa	ISO 178
Flexural Modulus	10800	MPa	ASTM D790
Flexural Stress	220	MPa	ASTM D790
Flexural Stress			
HEAUIDI OLIESS	218	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	89	J/m	ASTM D256
Unnotched Izod Impact, 23°C	1050	J/m	ASTM D4812
Instrumented Impact Total Energy 23℃	10.7	J	ASTM D3763
Multiaxial Impact	4.2	J	ISO 6603

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
1.82MPa, Unannealed, 3.2mm	210	$^{\circ}\! \mathbb{C}$	ASTM D648
/Af,1.8 MPa Flatw 80*10*4 sp=64mm	210	$^{\circ}\! \mathbb{C}$	ISO 75/Af
CLTE			ASTM E831
-40°C to 40°C, Flow	3.06E-06	cm/cm/℃	
-40°C to 40°C, Xflow	3.60E-06	cm/cm/℃	
CLTE			ISO 11359-2
-40°C to 40°C, Flow	3.11E-05	cm/cm/°C	
-40°C to 40°C, Xflow	3.73E-05	cm/cm/℃	

Processing Information	Typical Value	Unit
Maximum Moisture Content	0.05	%
Melt Temperature	355 to 370	$^{\circ}\!\mathbb{C}$
Mold Temperature	140 to 150	$^{\circ}\!\mathbb{C}$
Drying Temperature	120 to 150	$^{\circ}\!\mathbb{C}$
Drying Time	4	hr
Front Temperature	370 to 380	$^{\circ}$ C
Middle Temperature	360 to 370	$^{\circ}$ C
Rear Temperature	345 to 355	$^{\circ}$ C
Back Pressure	0.3 to 0.7	MPa
Screw Speed	60 to 100	rpm

#### NFD ADVANCED COMPOSITES

Tepla® T6030GF

#### 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。

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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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#### **CONTACT:**

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