

Tepla® T2000 CM TC I

Material Description:

Tepla® T2000 CM TC I is a thermally conductive, electrically insulative, mineral filled Polyphenylene Sulfide(PPS) Flame Retardant compound.

General		
Material Status	Commercial: Active	
Availability	Asia Pacific	North America
	Europe	Latin America
	Middle East	Africa
Filler/Reinforcement	Mineral	
Features	Electrically Insulating	Flame Retardant
	Thermally Conductive	Good Dimensional Stability
	Creep Resistant	Low Water Absorption
	Chemical Resistant	Good Rigidity
RoHS Compliance	RoHS Compliant	
Processing Method	Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.78	g/cm ³	ASTM D792
	1.76	g/cm ³	
Molding Shrinkage			ASTM D955
Across Flow : 24hr	0.44	%	
Flow:24hr	0.34	%	
Molding Absorption			ASTM D570 ISO 62
23°C, 24 hr	0.01	%	
Equilibrium,23°C, 50% RH	<0.01	%	

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus			ASTM D638 ISO 527-2/1
5.0 mm/min	28600	MPa	
	27000	MPa	
Tensile Strength			ASTM D638 ISO 527-2/5
Break,Type I, 5.0 mm/min	42	MPa	
Break	54	MPa	
Tensile Elongation			ASTM D638 ISO 527-2/5
Break,Type I, 5.0 mm/min	0.25	%	
Break	0.34	%	
Flexural Modulus			ASTM D790 ISO 178
50.0 mm Span,1.3 mm/min	26300	MPa	
2.0 mm/min	24400	MPa	
Flexural Stress			ISO 178 ASTM D790
2.0 mm/min,Yield	82	MPa	
Break, 50.0 mm Span,1.3 mm/min	81	MPa	

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact			ASTM D256 ISO 180/1A
23°C	18	J/m	
23°C, 80*10*4	2	KJ/m ²	
Unnotched Izod Impact			ASTM D4812 ISO 180/1U
23°C	55	J/m	
23°C, 80*10*4	4	KJ/m ²	

Instrumented Dart Impact			
23°C, Total Energy	5.2	J	ASTM D3763
	1.2	J	ISO 6603-2
Flammability	Typical Value	Unit	Test Method
Flame Rating			UL 94
1mm	V-0		
2.5mm	5VA		
Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	2.40E+15	ohms	ASTM D257
Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.2mm	275	°C	ASTM D648
0.45 MPa, Unannealed, 6.4mm Span	275	°C	ISO 75-2/Bf
80*10*4 mm			
1.8 MPa, Unannealed, 6.4mm	242	°C	ASTM D648
1.8 MPa, Unannealed, 6.4mm Span	238	°C	ISO 75-2/A
80*10*4 mm			
Specific Heat	1260	J/Kg/°C	ASTM C351
Thermal Conductivity			
Through-plane, 10*10*3mm sample	3.5	W/m/K	ASTM E1530
In-plane, ø25*0.4mm disc	15	W/m/K	ASTM E1461
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI Str	130	°C	UL 746
Processing Information	Typical Value	Unit	
Processing (Melt) Temp	320 to 350	°C	
Mold Temperature	120 to 150	°C	
Drying Temperature	120 to 150	°C	
Drying Time	4	hr	
Rear Temperature	316 to 343	°C	
Middle Temperature	316 to 343	°C	
Front Temperature	316 to 343	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	60 to 100	rpm	
Suggested Shot Size	50 to 75	%	

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.

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。

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