

Teppla® T2010CF EC

Material Description:

Teppla® T2010CF EC is a compound based on Polyphenylene Sulfide(PPS) - Linear resin containing 10% Carbon Fiber. Added feature of this material is: Electrically Conductive.

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Filler/Reinforcement	• Carbon Fiber, 10% Filler by Weight	
Features	• Electrically Conductive	• Linear Polymer Structure
	• Good Dimensional Stability	• Creep Resistant
	• Low Water Absorption	• Chemical Resistant
	• Good Rigidity	• Flame Retardant
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Density/Specific Gravity	1.38	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Across Flow:24hr	0.60 to 0.90	%	
Flow:24hr	0.50 to 0.80	%	
Water Absorption			
24hr, 50% RH	0.01	%	ASTM D570
Equilibrium,23°C, 50% RH	0.02	%	ISO 62

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus			
5.0 mm/min	7700	MPa	ASTM D638
	7640	MPa	ISO 527-2/1
Tensile Strength			
Yield,Type I, 5.0 mm/min	98	MPa	ASTM D638
Yield	99	MPa	ISO 527-2/5
Break,Type I, 5.0 mm/min	98	MPa	ASTM D638
Break	99	MPa	ISO 527-2/5
Tensile Elongation			
Yield,Type I, 5.0 mm/min	1.6	%	ASTM D638
Break,Type I, 5.0 mm/min	1.6	%	ASTM D638
Flexural Modulus			
50.0 mm Span,1.3 mm/min	6550	MPa	ASTM D790
2.0 mm/min	6700	MPa	ISO 178
Flexural Stress			
	150	MPa	ISO 178
Yield, 50.0 mm Span,1.3 mm/min	144	MPa	ASTM D790
Break, 50.0 mm Span,1.3 mm/min	143	MPa	ASTM D790

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact			
23°C	34	J/m	ASTM D256
23°C, 80*10*4	3	KJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	292	J/m	ASTM D4812

23°C, 80*10*4	19	KJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	7.3	J	ASTM D3763
	1.3	J	ISO 6603-2

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	3 to 6	ohms	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.2mm	263	°C	ASTM D648
0.45 MPa, Unannealed, 64mm	259	°C	ISO 75-2/Bf
Span 80*10*4 mm			
1.8 MPa, Unannealed, 3.2mm	189	°C	ASTM D648
1.8 MPa, Unannealed, 64mm	122	°C	ISO 75-2/ Af
Span 80*10*4 mm			
CLTE			ASTM D696
Flow: -30 to 30°C	2.70E-05	cm/cm/°C	
Transverse: -30 to 30°C	5.20E-05	cm/cm/°C	

Processing Information	Typical Value	Unit
Processing (Melt) Temp	315 to 320	°C
Mold Temperature	138 to 166	°C
Drying Temperature	120 to 150	°C
Drying Time	4	hr
Rear Temperature	304 to 316	°C
Middle Temperature	321 to 332	°C
Front Temperature	332 to 343	°C
Back Pressure	0.172 to 0.344	MPa
Screw Speed	30 to 60	rpm

NFD ADVANCED COMPOSITES Tepla® T2010CF 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.

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