

Tepla® T7200 CF TF EC

Material Description:

Tepla® T7200 CF TF EC is a Polyetherketoneketone (PEKK) material filled with carbon fiber. Important attributes of Tepla® T7200 CF TF EC are: Electrically Conductive, Lubricated, ESD Protection, Heat Resistant, Wear Resistant. Typical applications include: Aerospace Fabrics/Fibers Engineering/Industrial Parts Automotive Medical/Healthcare.

General	
Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> Asia Pacific Europe Middle East North America Latin America Africa
Filler/Reinforcement	<ul style="list-style-type: none"> Carbon Fiber
Additive	<ul style="list-style-type: none"> PTFE Lubricant
Features	<ul style="list-style-type: none"> Lubricated Electrically Conductive Low Friction High Heat Resistance ESD Protection Wear Resistant
Uses	<ul style="list-style-type: none"> Aerospace Applications Textile Applications Medical/Healthcare Applications Engineering Parts Automotive Applications
Appearance	<ul style="list-style-type: none"> Dark Grey
Processing Method	<ul style="list-style-type: none"> Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density	1.46	g/cm ³	ISO 1183
Melt Volume -Flow Rate (MVR) 380°C/10.0 kg	15	cm ³ /10min	ISO 1133
Molding Shrinkage (3.00mm)	0.10 to 0.30	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	14500	MPa	ISO 527-2
Tensile Stress (Break)	157	MPa	ISO 527-2
Tensile Strain (Yield)	1.8	%	ISO 527-2
Flexural Modulus	13500	MPa	ISO 178
Flexural Stress	236	MPa	ISO 178
Flexural Strain at Flexural Strength	2.2	%	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Charpy Unnotched Impact Strength -30°C	25.6	kJ/m ²	ISO 179/1fU
23°C	31	kJ/m ²	

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	< 1.0E+4	ohms	IEC 60093
Insulation Resistance	< 1.0E+5	ohms	IEC 60167

Thermal Properties	Typical Value	Unit	Test Method
Heat Deflection Temperature 1.8 MPa, Unannealed	305	°C	ISO 75-2/A
Continuous Use Temperature	270	°C	UL 746B
CLTE - Flow	5.00E-06	cm/cm/°C	DIN 53752

Injection	Typical Value	Unit
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Drying Temperature		
Desiccant Dryer, A	150	°C
Desiccant Dryer, B	120	°C
Drying Time		
Desiccant Dryer, A	4.0 to 6.0	hr
Desiccant Dryer, B	6.0 to 10	hr
Rear Temperature	370 to 420	°C
Middle Temperature	380 to 420	°C
Front Temperature	390 to 420	°C
Nozzle Temperature	390 to 420	°C
Processing (Melt) Temp	390	°C
Mold Temperature	210 to 230	°C

Injection Notes

General

- Any added fibrous materials or fillers may have an abrasive effect. In this case the cylinder and screw should be protected against wear as is usual in the processing of reinforced thermoplastic materials.
- Lengthy dwell times for the melts in the cylinder should be avoided.
- Lower the temperatures during interruptions!

Predrying (optional)

- It is advisable to predry the granulate with a suitable dryer immediately before processing.
- The granulate may absorb moisture from the air.

Delivery Form & Storage

- Unless indicated otherwise, the material is delivered as 3mm-long pellets in sealed bags on pallets.
- Preferably storage should be effected in dry and normally temperatured rooms

NFD ADVANCED COMPOSITES

Tepla® T7200 CF TF 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的热处理温度或时间。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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