

# Tepla® T7200

## Material Description:

Tepla® T7200 is Ultra high performance thermoplastic polymer, unfilled Polyether Ketone (PEKK), semicrystalline granules suitable for injection molding and compounding, standard flow, brown in color. Application Areas: Suitable for high temperature under heavy load applications, high compressive strength & abrasion resistance, high chemical resistance & oil resistance etc.

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific
	• Europe
	• Middle East
Features	• Abrasion Resistant
	• Chemical Resistant
	• Good Compressive Strength
Uses	• Semi Crystalline
	• High Temperature Applications
Appearance	• Brown
Forms	• Granules
Processing Method	• Compounding

Physical Properties	Typical Value	Unit	Test Method
Density	1.3	g/cm <sup>3</sup>	
Molding Shrinkage <sup>1</sup>			
Flow	1.2	%	
Across Flow	1.3	%	
Water Absorption (Equilibrium)	0.04	%	ASTM D570

Hardness	Typical Value	Unit	Test Method
Durometer Hardness (Shore D)	87		ASTM D2240

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus (23°C)	4000	MPa	ASTM D638
Tensile Strength (Yield, 23°C)	87	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	3.0 to 4.0	%	ASTM D638
Flexural Modulus (23°C)	4070	MPa	ASTM D790
Flexural Strength (23°C)	188	MPa	ASTM D790

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact (23°C)	31	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D4812

Flammability	Typical Value	Unit	Test Method
Flame Rating (0.8 mm)	V-0		UL94

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	188	°C	ASTM D648
Continuous Use Temperature	300	°C	UL 746B
Glass Transition Temperature	176	°C	ASTM D3418
Melting Temperature	396	°C	ASTM D3418
Thermal Stability - Haake <sup>2</sup>	25	min	

Injection	Typical Value	Unit
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Drying Temperature	150	°C
Drying Time	4.0 to 6.0	hr
Hopper Temperature	60 to 80	°C
Nozzle Temperature	425	°C
Processing (Melt) Temp	390 to 425	°C
Mold Temperature	200 to 220	°C

#### Notes

<sup>1</sup> 425°C nozzle, 220°C Mold

<sup>2</sup> GSRF 05/420°C, 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。

#### COMPANY/公司:

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