

Tepla® T7200 HF

Material Description:

Tepla® T7200 HF is a unreinforced PolyEtherKetoneKetone (PEKK) product. Characteristics include: High Flow, Semi Crystalline, Flame Retardant. Unfilled PEKK resins designed to meet the requirements of a broad range of processing technologies, including among others extrusion, calendaring, thermoforming, injection molding, fiber impregnation, rotomolding, powder coating, bonding and welding.

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
Features	<ul style="list-style-type: none"> Chemical Resistant Flame Retardant High Flow Semi Crystalline
Uses	<ul style="list-style-type: none"> Impregnation Applications Structural Parts
Appearance	<ul style="list-style-type: none"> Beige Grey
Forms	<ul style="list-style-type: none"> Pellets Powder
Processing Method	<ul style="list-style-type: none"> Extrusion Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Density (23°C)	1.29	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)			ISO 1133
380°C/1.2 kg	12	cm ³ /10min	
380°C/5.0 kg	70	cm ³ /10min	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.2	%	
Saturation, 23°C	0.5	%	
Equilibrium, 23°C, 50% RH	0.1	%	
Equilibrium, 23°C, 2.00 mm, 50% RH ¹	0.01	%	

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus	3880	MPa	ISO 527-2/1BA/1
23°C, Injection Molded			
Tensile Stress	75 to 108	MPa	ISO 527-2/1BA/25
Break, 23°C, Injection Molded			
Tensile Strain	2.0 to 4.0	%	ISO 527-2/1BA/25
Break, 23°C, Injection Molded			
Compressive Modulus (23°C)	3750	MPa	ISO 604/1

Impact Properties	Typical Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Injection Molded	4.2	kJ/m ²	
23°C, Injection Molded	4.7	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C, Injection Molded	18.3	kJ/m ²	
23°C, Injection Molded	22.5	kJ/m ²	

Electrical Properties	Typical Value	Unit	Test Method
Surface Resistivity	1E+16	ohms	ASTM D257
Volume Resistivity (23°C)	1E+16	ohms-cm	ASTM D257
Electric Strength (0.100 mm)	84	kV/mm	IEC 60243-1
Relative Permittivity (23°C, 1 MHz)	2.6		IEC 60250
Dissipation Factor (23°C, 1 kHz)	7.00E-03		IEC 60250

Thermal Properties	Typical Value	Unit	Test Method
Heat Deflection Temperature 1.8 MPa, Unannealed	172	°C	ISO 75-2/ Af
Glass Transition Temperature ²	162	°C	
Melting Temperature (DSC) ³	334	°C	
CLTE - Flow			DMA
-100 to 160°C	2.40E-05	cm/cm/°C	
160 to 300°C	2.30E-04	cm/cm/°C	
Specific Heat (23°C)	1020	J/kg/°C	

Flammability	Typical Value	Unit	Test Method
Flame Rating (0.8 mm)	V-0		UL94
Oxygen Index ⁴	35	%	ISO 4589-2

Injection	Typical Value	Unit
Drying Temperature		
A	150	hr
Drying Time		
A	3.0 to 4.0	hr
Rear Temperature	320	°C
Middle Temperature	340	°C
Front Temperature	350	°C
Nozzle Temperature	360	°C
Processing (Melt) Temp	340 to 360	°C
Mold Temperature	230 to 250	°C

Notes

- ¹ 24hr
- ² 20°C/min
- ³ 20°C/min, 2nd heating
- ⁴ 1.6 mm

NFD ADVANCED COMPOSITES

Tepla® T7200 HF

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.

上列数据只作参考用途, 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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