

Tepla® T8000 UV EF

Material Description:

Tepla® T8000 UV is an unfilled custom color compound based on Polyetherimide(PEI) resin. Added features of this grade include: Easy Molding, UV Stabilized, Clean Compound System.

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
Additive	<ul style="list-style-type: none"> UV Stabilizer
Features	<ul style="list-style-type: none"> Easy Molding Steam Resistant Clean Compound System Heat Resistant Fatigue Resistant Flame Retardant UV Stabilized Creep Resistant Low (to None) Ion Content Low Temperature Resistant Good Electrical Properties
Applications	<ul style="list-style-type: none"> Hospital Goods Industrial Applications Connectors Dental Applications Aircraft Applications Medical Devices Medical/Healthcare Applications Electrical/Electronic Applications
Appearance	<ul style="list-style-type: none"> Available colors
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant
Processing Method	<ul style="list-style-type: none"> Injection Molding

Physical Properties	Typical Value	Unit	Test Method
Specific Gravity	1.27	g/cm ³	ASTM D792
Mold Shrinkage Flow, 3.2mm	0.5 to 0.7	%	NFD Method
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	18	g/10 min	ASTM D1238
Moisture Absorption, 24 hrs	0.25	%	ASTM D570
Moisture Absorption (23°C, 50% RH)	1.3	%	ASTM D570

Hardness	Typical Value	Unit	Test Method
Rockwell Hardness (M-Scale)	109		ASTM D785

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 5 mm/min	3700	MPa	ASTM D638
Tensile Strength, Yield, Type I 5 mm/min	114	MPa	ASTM D638
Tensile Elongation, Yield, Type I 5 mm/min	7	%	ASTM D638
Tensile Elongation, Break, Type I 5 mm/min	60	%	ASTM D638
Flexural Modulus, 2.6 mm/min, 100 mm Span	3500	MPa	ASTM D790
Flexural Strength, Yield 2.6 mm/min, 100 mm Span	164	MPa	ASTM D790
Taber Abrasion Resistance 1000 Cycles 1000 g, CS-17 Wheel	10	mg	ASTM D1044

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	33	J/m	ASTM D256

Unnotched Izod Impact, 23°C	1250	J/m	ASTM D4812
Reverse Notch Izod Impact (3.20 mm)	1174	J/m	ASTM D256
Gardner Impact (23°C)	34	J	ASTM D3029
Flammability			
Flame Rating			UL 94
0.75 mm	V-0		
3.0 mm	5VA		
Limiting Oxygen Index	44	%	ASTM D2863
NBS Smoke Density - Flaming, Ds 4 min	2		ASTM E662
Electrical Properties			
Dielectric Strength			ASTM D149
1.60 mm, in Air	32.8	kV/mm	
1.60 mm, in Oil	27.9	kV/mm	
Dielectric Constant (1 kHz)	3.15		ASTM D150
Dissipation Factor			ASTM D150
1 kHz	1.30E-03		
2.45 GHz	2.50E-03		
Arc Resistance	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 4		UL 746
High Amp Arc Ignition (HAI)	PLC 3		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Volume Resistivity	1.00E+17	Ohm•cm	ASTM D257
Thermal Properties			
Deflection Temperature Under Load			
1.82MPa, Unannealed, 3.2mm	199	°C	ASTM D648
0.45 MPa, Unannealed, 3.2mm	207	°C	ASTM D648
CLTE			ASTM E831
-20°C to 150°C, Flow	5.60E-05	cm/cm/°C	
Thermal Conductivity	0.22	W/m/K	ASTM C177
RTI Elec	170	°C	UL 746
RTI Imp	170	°C	UL 746
RTI Str	170	°C	UL 746
Processing Information			
Suggested Maximum Moisture Content	0.02	%	
Melt Temperature	350 to 400	°C	
Mold Temperature	135 to 165	°C	
Drying Temperature	149	°C	
Drying Time	4 to 6	hr	
Drying Time, Maximum	24	hr	
Front Temperature	345 to 400	°C	
Middle Temperature	338 to 400	°C	
Rear Temperature	331 to 400	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Nozzle Temperature	343 to 399	°C	
Suggested Shot Size	40 to 60	%	
Vent Depth	0.025 to 0.076	mm	

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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