Matreial Data Sheet

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

ASTM C 273

Tepla® T8030CF EC HF

Material Description:

Shear Strength

Tepla ® T8030CF EC HF is a compound based on Polyetherimide(PEI) containing 30% Carbon Fiber. Added features include: Electrically Conductive, High Flow.

Electrically Conductive, High Flow. General				
Material Status	Commercial: Active			
Waterial Status	Asia Pacific		North America	
Availability	• Europe		Latin America	
, tvandonie,	Middle East		Africa	
Filler/Reinforcement	Carbon Fiber, 30% Filler by	Weight	, uniou	
Thier Reimordement	Electrically Conductive	vvoigite	Fatigue Resistant	
	Steam Resistant		Creep Resistant	
	Chemical Resistant		Flame Retardant	
	Heat Resistant		High Stiffness	
Features	Wear Resistant		UV Resistant	
	Radiation (Gamma) Resistant		Hydrolysis Stable	
	Good Dimensional Stability		Mold Release	
	High Mobility	/	- Moid Release	
	Hospital Goods		Aircraft Applications	
	Industrial Applications		Medical Devices	
Applications	Connectors		Medical/Healthcare Application:	c
	Dental Applications		Electrical/Electronic Applications	
RoHS Compliance	RoHS Compliant		Liectrical/Liectronic Applications)
·	Injection Molding			
Processing Method	• Injection Molding			
Physical Properties	Typical Value	Unit	Test M	lethod
Specific Gravity	1.39	g/cm ³		1 D792
Moisture Absorption (24hr, 50% RH)	0.11	%		1 D570
Mold Shrinkage	0.11	70		1 D955
Flow, 24 hrs	0.03	06	ASTIV	ו שטטנ
Across Flow, 24 hrs	0.03	%		
Poisson's Ratio	0.44		ΛΟΤΛ	1 D638
FOISSOITS NATIO	0.44	70	ASTIV	1 0030
Mechanical Properties	Typical Value	Unit	Test M	lethod
Tensile Modulus, 50 mm/min	30800	MPa		1 D638
Tensile Modulus, 1 mm/min	29500	MPa		O 527
Tensile Strength, break, Type I	29300	IVIF a	IC	00 321
5 mm/min	285	MPa	ASTM	1 D638
Tensile Strength, break				
5 mm/min	256	MPa	IS	SO 527
Tensile Elongation, break				
5 mm/min	1	%	IS	O 527
Tensile Elongation, break, Type I				
5 mm/min	1.1 to 1.2	%	ASTM	1 D638
Flexural Modulus, 1.3 mm/min				
	26600	MPa	ASTM	1 D790
50 mm span Flexural Modulus,				
•	24500	MPa	IS	O 178
2 mm/min				
Flexural Stress, break, 1.3 mm/min	353	MPa	ASTM	1 D790
50 mm span			10	`
Flexural Stress	336	MPa		O 178
Compressive Strength	231	MPa	NFD N	rietnoc

129 MPa

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23°C	82	J/m	ASTM D256
Unnotched Izod Impact, 23°C	701	J/m	ASTM D4812

Electrical Properties	Typical Value Unit	Test Method
Surface Resistivity	1.00E+03 Ohm	ASTM D257

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.82MPa, Unannealed, 3.2mm	195	$^{\circ}$ C	ASTM D648
CLTE			ASTM E831
-40°C to 150°C, Flow	7.00E-06	cm/cm/℃	
-40℃ to 150℃, Xflow	5.00E-06	cm/cm/℃	

Processing Information	Typical Value	Unit
Maximum Moisture Content	0.05	%
Melt Temperature	360 to 365	${}^{\circ}\! \mathbb{C}$
Mold Temperature	120 to 150	${\mathbb C}$
Drying Temperature	120 to 150	${\mathbb C}$
Drying Time	4	hr
Front Temperature	365 to 375	${\mathbb C}$
Middle Temperature	355 to 365	$^{\circ}\!\mathrm{C}$
Rear Temperature	345 to 355	$^{\circ}\!\mathrm{C}$
Back Pressure	0.3 to 0.7	MPa
Screw Speed	60 to 100	rpm

NFD ADVANCED COMPOSITES

Tepla® T8030CF EC 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质可能会在被释放,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。

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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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