Tepla® T8000

Material Description:

Tepla® T8000 is an self lubricating Compound based on Polyetherimide(PEI) resin featuring low levels of leachable fluoride ions, suitable for use in abrasive wear conditions and wear against soft metals.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific	• North America
	• Europe	• Latin America
	• Middle East	• Africa
Features	• Self Lubricated	• Fatigue Resistant
	• Steam Resistant	• Creep Resistant
	• Chemical Resistant	• Flame Retardant
	• Heat Resistant	• High Stiffness
	• Wear Resistant	• UV Resistant
	• Radiation (Gamma) Resistant	• Hydrolysis Stable
	• Good Dimensional Stability	
Applications	• Hospital Goods	• Aircraft Applications
	• Industrial Applications	• Medical Devices
	• Connectors	• Medical/Healthcare Applications
	• Dental Applications	• Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant	
Processing Method	• Injection Molding	

Physical Properties	Typical Value	Unit	Test Method
Specific Gravity	1.31	g/cm^3	ASTM D792
Melt Flow Rate, 337℃/6.6 kgf	12	g/10 min	ASTM D1238
Density	1.31	g/cm³	ISO 1183
Melt Volume Rate, MVR at 340℃/5.0 kg	10.04	cm³/10 min	ISO 1133

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Modulus, 50 mm/min	3550	MPa	ASTM D638
Tensile Modulus, 1 mm/min	3400	MPa	ISO 527
Tensile Strength, yield, Type I 5 mm/min	93	MPa	ASTM D638
Tensile Strength, break, Type I 5 mm/min	92	MPa	ASTM D638
Tensile Strength, yield 5 mm/min	93	MPa	ISO 527
Tensile Strength, break 5 mm/min	91	MPa	ISO 527
Tensile Elongation, yield, Type I 5 mm/min	5.8	%	ASTM D638
Tensile Elongation, break, Type I 5 mm/min	5.2	%	ASTM D638
Tensile Elongation, yield 5 mm/min	5.4	%	ISO 527
Tensile Elongation, break 5 mm/min	6	%	ISO 527
Flexural Modulus, 1.3 mm/min 50 mm span	3370	MPa	ASTM D790
Flexural Modulus, 2 mm/min	3500	MPa	ISO 178

Flexural Stress, yield, 1.3 mm/min 50 mm span	148	MPa	ASTM D790
Flexural Stress, yield, 2 mm/min	150	MPa	ISO 178

Impact Properties	Typical Value	Unit	Test Method
Notched Izod Impact, 23℃	37	J/m	ASTM D256
Notched Izod Impact, 80*10*4, 23℃	4.4	kJ/m^2	ISO 180/1A

Thermal Properties	Typical Value	Unit	Test Method
Deflection Temperature Under Load			
1.82MPa, Unannealed, 3.2mm	189	℃	ASTM D648
/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	189	℃	ISO 75/Af
Vicat Softening Temp, Rate B/120	213	℃	ISO 306

Processing Information	Typical Value	Unit
Maximum Moisture Content	0.02	%
Melt Temperature	360 to 465	℃
Mold Temperature	120 to 150	℃
Drying Temperature	120 to 150	℃
Drying Time	4	hr
Drying Time (Cumulative)	24	hr
Front Temperature	365 to 376	℃
Middle Temperature	355 to 365	℃
Rear Temperature	344 to 355	℃
Nozzle Temperature	345 to 400	℃
Back Pressure	0.344 to 0.689	MPa
Screw Speed	40 to 70	rpm
Shot to Cylinder 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。

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.
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