Ensinger TECAPEI® 20% Glass Reinforced, made from Ultem® 2200 PEI

Category : Polymer , Thermoplastic , Polyetherimide (PEI) , Polyetherimide (PEI), 20% Glass Fiber

Material Notes:

TECAPEI™ is an amorphous thermoplastic polyetherimide (PEI) made from Sabic Innovative Plastics' Ultem® 1000 and 2000 series resins. The unreinforced 1000 series materials are translucent amber in color, and combine exceptional mechanical, thermal, and electrical properties. The addition of glass fiber reinforcement in the 2000 series, coupled with Ensinger's proprietary extrusion techniques, provides the TECAPEI™ with both greater tensile strength and rigidity, while also improving dimensional stability.Excellent mechanical strength (exhibits high tensile strength at room temperature and retains a significant portion of this strength at elevated temperatures. Glass fibers further increase high-temperature strength)Outstanding heat resistance (retains its physical properties at elevated temperatures)Exceptional resistance to environmental forces (Environmental characteristics of TECAPEI™ include it's stress resistance)Inherent flame resistance with low smoke evolution (Tested internally to UL 94 V-0)High mechanical strengthHigh dielectric strength and stabilityLow dissipation factor over a wide range of frequenciesExcellent machinability and finishing characteristics (TECAPEI™ can be easily machined with conventional metalworking tools, painted, hot stamped, printed, or metallized)Resin used in natural grade are FDA, USP Class VI and NSF compliant TECAPEI™ has many applications in medical, electronic/electrical, microwave, automotive, and aircraft industries.Information Provided by Ensinger Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ensinger-TECAPEI-20-Glass-Reinforced-made-from-Ultem-2200-PEI.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.42 g/cc	1.42 g/cc	ASTM D792
Water Absorption	0.19 % @Temperature 22.8 °C, Time 86400 sec	0.19 % @Temperature 73.0 °F, Time 24.0 hour	ASTM D570
Water Absorption at Saturation	1.1 % @Temperature 22.8 °C	1.1 % @Temperature 73.0 °F	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	114	114	ASTM D785
Tensile Strength at Break	139 MPa @Temperature 22.8 °C	20100 psi @Temperature 73.0 °F	ASTM D638
Elongation at Break	3.0 % @Temperature 22.8 °C	3.0 % @Temperature 73.0 °F	ASTM D638
Tensile Modulus	6.89 GPa @Temperature 22.8 °C	1000 ksi @Temperature 73.0 °F	ASTM D638
Flexural Strength	207 MPa	30000 psi	ASTM D790

Mechanical Properties	@Temperature 22.8 °C Metric	@Temperature 73.0 °F English	Comments
Flexural Modulus	6.21 GPa @Temperature 22.8 °C	900 ksi @Temperature 73.0 °F	ASTM D790
Compressive Strength	198 MPa	28700 psi	ASTM D695
Compressive Modulus	5.58 GPa	809 ksi	ASTM D695
Shear Strength	93.1 MPa	13500 psi	Ultimate
Izod Impact, Notched	0.854 J/cm	1.60 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	25.2 µm/m-°C	14.0 µin/in-°F	ASTM D696
Thermal Conductivity	0.206 W/m-K	1.43 BTU-in/hr-ft²-°F	ASTM D2214
Deflection Temperature at 0.46 MPa (66 psi)	210 °C	410 °F	1/4"; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	209 °C	408 °F	1/4"; ASTM D648
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	7.00e+16 ohm-cm	7.00e+16 ohm-cm	1/16"; ASTM D257
Dielectric Constant	3.5 @Frequency 1000 Hz	3.5 @Frequency 1000 Hz	50% RH; ASTM D150
Dielectric Strength	26.4 kV/mm	670 kV/in	In Oil; ASTM D149
Dissipation Factor	0.0015 @Frequency 1000 Hz, Temperature 22.8 °C	0.0015 @Frequency 1000 Hz, Temperature 73.0 °F	50% RH; ASTM D150

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China