Tempalux® 20% GF

Polyether Imide

Westlake Plastics Company

Message:

An amorphous thermoplastic polyetherimide, stock shapes from ULTEM® resin possess a combination of useful characteristics, including high strength at elevated temperatures, high modulus, and broad chemical resistance. Tempalux stock shapes are inherently flame resistant with low smoke emission. Tempalux stock shapes display property retention and resistance to environmental stress cracking when exposed to a wide variety of chemicals. The standard color of Tempalux stock shapes is light amber. Glass filled grades appear tan or greenish in color. Tempalux rod, slab, and tubular bar are air annealed for stress relief.
Applications Include:
Burn-in test sockets
Connectors
Automotive components
Valves, electrical fittings
Advantages of Tempalux:
Inherent flame resistance
Extremely low NBS smoke evolution
Superior limiting oxygen index
Exceptional tensile and flexural strength
Broad chemical resistance
UV stable
FDA compliant

General Information	
Filler / Reinforcement	Glass Fiber,20% Filler by Weight
Features	Amorphous
	Flame Retardant
	Food Contact Acceptable
	Good Chemical Resistance
	Good UV Resistance
	High ESCR (Stress Crack Resist.)
	High Temperature Strength
	High Tensile Strength
	Low Smoke Emission
Uses	Automotive Applications
	Connectors
	Electrical Parts
	Valves/Valve Parts
Agency Ratings	FDA Unspecified Rating
Appearance	Green
	Tan
Forms	Film
	Rod

Sheet

Slab

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.42	g/cm³	ASTM D792
Water Absorption (24 hr)	0.19	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	114		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	6890	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	139	MPa	
Break	131	MPa	
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	6890	MPa	ASTM D790
Flexural Strength (Yield)	207	MPa	ASTM D790
Compressive Modulus	5580	MPa	ASTM D695
Compressive Strength	198	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	85	J/m	ASTM D256
Unnotched Izod Impact	480	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	210	°C	
1.8 MPa, Unannealed	209	°C	
CLTE - Flow	2.5E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.25	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	7.0E+16	ohms·cm	ASTM D257
Dielectric Strength	26	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	3.50		ASTM D150
Dissipation Factor (1 kHz)	1.5E-3		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.406 mm)	V-0		UL 94
Oxygen Index	50	%	ASTM D2863

Recommended distributors for this material

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