Tempalux® Medical

Polyether Imide

Westlake Plastics Company

Message:

Medical grade Tempalux is made from Ultem® polyetherimide resin, an amorphous thermoplastic which exhibits excellent resistance to a wide range of chemicals and disinfectants. Ultern maintains its size and shape over a broad temperature range as well as tolerates a high amount of stress over extended periods of time. Recommended sterilization techniques for Tempalux include EtO gas, radiation, steam autoclaving, dry heat and cold sterilization.

Applications Include:

Provisional trials

Instrument handles

Medical device components

Advantages of Medical Grade Tempalux:

Lot controlled and traceable

Resin compliant with FDA regulation 21 CFR 177.1595

Resin meets the requirements of USP Class VI specifications

Stress relieved

General Information			
Features	Amorphous		
	Autoclave Sterilizable Ethylene Oxide Sterilizable Food Contact Acceptable Good Chemical Resistance Heat Sterilizable		
	Radiation Sterilizable		
	Steam Sterilizable		
Uses	Handles		
	Medical/Healthcare Applications		
Agency Ratings	FDA 21 CFR 177.1595		
	USP Class VI		
Appearance	Black		
	Blue		
	Brown		
	Green		
	Grey		
Forms	Film		
	Rod		
	Sheet		
	Slab		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.27	g/cm³	ASTM D792
Water Absorption (24 hr)	0.25	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	109		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2960	MPa	ASTM D638
Tensile Strength (Yield)	105	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	7.0	%	
Break	60	%	
Flexural Modulus	3310	MPa	ASTM D790
Flexural Strength (Yield)	152	MPa	ASTM D790
Compressive Modulus	3310	MPa	ASTM D695
Compressive Strength	151	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	53	J/m	ASTM D256
Unnotched Izod Impact	1300	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	200	°C	
CLTE - Flow	5.6E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.22	W/m/K	ASTM C177
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
0.406 mm	V-0		
1.91 mm	5VA		

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