



TEMPALUX[®] POLYETHERIMIDE

Medical grade Tempalux is made from Ultem[®] polyetherimide (PEI) resin, is an amorphous thermoplastic which exhibits excellent resistance to a wide range of chemicals and disinfectants. Tempalux 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.

The following physical property information is based on typical values of the base polyetherimide resin.

Applications Include:

- Provisional trials
- Instrument handles
- Surgical device components

Advantages of Tempalux:

- Lot controlled and traceable
- Resin complies with FDA regulation 21 CFR 177.1575
- Resin meets the requirements of ISO 10993 and USP VI
- Stress relieved

Manufacturing Capabilities:

- **Standard Rod :**
colors dia. 1" to 3 1/2" (1/2" increments)
black dia. 3/8", 1/2", 3/4", 1" to 3 1/2"
(1/2" increments)
- **Rod Length:**
3/8" to 2" diameter - 96"
2 1/2" to 3 1/2" diameter - 48"

Non Standard

- **Rod:** 1/4", >3 1/2" to 6" dia.
- **Sheet:** .035" to .220" thick
- **Slab:** 3/8" to 4" thick
- **Film:** .002" to .029" thick

Colors/Grades:

- Black
- Blue
- Brown
- Gray
- Green

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

Property	Units	Test Standard	Unfilled
Mechanical			
Tensile Strength			
@yield	psi	ASTM D638	16,000
@break	psi	ASTM D638	13,100
Tensile Modulus	psi	ASTM D638	519,000
Tensile Elongation @yield	%	ASTM D638	7.0
Tensile Elongation @break	%	ASTM D638	60.0
Flexural Strength @yield	psi	ASTM D790	25,100
Flexural Modulus	psi	ASTM D790	498,000
Izod Impact Strength			
Un-Notched	ft·lbs/in	ASTM D4812	25.0
Notched @73°F	ft·lbs/in	ASTM D256	1.0
Hardness	M Scale	ASTM D785	M109
Thermal			
Heat Deflection Temperature			
@264 psi	°F	ASTM D648	394
Coefficient of Thermal Expansion (-4° to 302°F)	in/in/°F	ASTM E831	3.1x10 ⁻⁵
Limiting Oxygen Index	%	ASTM D2863	47.0
Other			
Specific Gravity	—	ASTM D792	1.27
Water Absorption @24 hours	%	ASTM D570	0.25