



** TEMPALUX® is the registered trademark of

WESTLAKE PLASTICS COMPANY

PRODUCT CAPABILITIES:

- Rod : 1/4" - 8"
- Heavy Gauge Sheet : 1/8" - 4"
- Thin Gauge Sheet : 0.030" - 0.125"
- Film : 0.001" - 0.029"

ADVANTAGES:

- Inherent Flame Resistance
- Extremely Low NBS Smoke Evolution
- Superior Limiting Oxygen Index
- Exceptional Tensile And Flexural Strength
- High Dielectric Strength
- Low Dissipation Factor
- Stable Electrical Properties Over A Wide Range Of Temperatures and Frequencies
- Broad Chemical Resistance
- U.V. Stable
- Excellent Finishing Characteristics
- FDA Compliant

PRODUCT COLORS:

- Black
- Light Amber

APPLICATIONS INCLUDE:

- Structural Probes
- Surgical Probes
- Manifolds In Pharmaceutical Process Equipment
- High Frequency Insulators Used In Microwave Communications
- Semiconductor
- Pump Housings
- Wafer Processing

GENERAL PROPERTIES	ASTM or UL Test	TEMPALUX® / ULTEM® 1000 Typical Values
PHYSICAL		
Specific Gravity (g/cm ³)	D792	1.27
Water Absorption, 24 hrs (%)	D570	0.25
MECHANICAL		
Tensile Strength (psi)	D638	15,200
Tensile Modulus (psi)	D638	430,000
Tensile Elongation at Yield (%)	D638	7
Flexural Strength (psi)	D790	22,000
Flexural Modulus (psi)	D790	480,000
Compressive Strength (psi)	D695	21,900
Compressive Modulus (psi)	D695	480,000
IZOD Notched Impact (ft-lb/in)	D256	1
Hardness, Rockwell	D785	M109
THERMAL		
Coeff. of Thermal Expansion (x 10 ⁻⁵ in./in./°F)	D696	3.1
Heat Deflection Temp (°F / °C) @ 264 psi	D648	392 / 200
Max Operating Temp (°F / °C)	-	340 / 171
Limiting Oxygen Index (%)	D2863	47
Thermal Conductivity (BTU-in/ft ² -hr-°F)	C177	1.53
Flammability Rating @ .075	UL-94	5VA
ELECTRICAL		
Dielectric Strength (V/mil) short time, 1/8" thick	D149	831
Dielectric Constant at 1 MHz	D150	3.15
Dissipation Factor at 1 MHz	D150	0.0013
Volume Resistivity (ohm-cm) at 50% RH	D257	1.0 x 10 ¹⁷

NOTE: The information contained here in is typical values intended for reference only. They should NOT be used as a basis for design specifications or quality control.