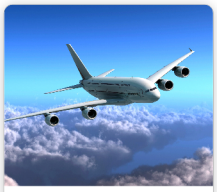
P: 1.800.999.1700 | F: 610.459.1084 | info@westlakeplastics.com | 490 West Lenni Road, Lenni, PA 19052 U.S.A.

Thermalux® PPSU



Thermalux® Polyphenylsulfone (PPSU) is a transparent and rigid high-temperature engineering thermoplastic and belongs to the sulfone family of polymers. It is known for its extreme toughness, high flexural and tensile strength, excellent hydrolytic stability and good resistance to chemicals and heat.

INDUSTRY



Aerospace & Defense



Chemical Process



Engineering

COLORS AVAILABLE

Black Natural

ATTRIBUTES

- Impact Resistance
- Heat Resistant
- Dimensional Stability
- Dielectric Properties
- Chemical Resistance

SHAPES

- Extruded Slab
- Extruded Sheet
- Extruded Film
- Extruded Rod

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TYPICAL PROPERTIES

PROPERTY	TEST STANDARD	ENGLISH UNITS	METRIC UNITS
Mechanical			
Flexural Modulus*	D790	337 kpsi	2,323 MPa
Flexural Strength - 5%*	D790	14.4 kpsi	99.3 MPa
Izod Impact Resistance - Notched*	D256	3.06 ft-lb/in	163 J/m
Tensile Elongation @ Break*	D638	23.7%	23.7%
Tensile Elongation @ Yield*	D638	7.40 %	7.40 %
Tensile Modulus*	D638	339 kpsi	2,340 MPa
Tensile Strength @ Break*	D638	9.9 kpsi	68.3 MPa
Tensile Strength @ Yield*	D638	11.6 kpsi	79.9 MPa
Thermal			
HDT @ 264 psi**	D648	404 °F	207 °C
Physical			
Moisture Absorption**	D570	0.37 %	0.37 %
Specific Gravity**	D792	1.29	1.29
Electrical			
Volume Resistivity**	D257	1 x 10^{15} ohm-cm	1 x 10^{15} ohm-cm

*Data above is based on testing or machined test specimens made from extruded bar stock

**Data above is based on testing of injection molded test specimens

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Thermalux® PPSU

PRODUCT SHAPES & DIMENSIONS

Rods: 48"L (122cm)

2.25" (57.15mm) 2.5" (63.5mm) 2.75" (69.85mm) 3" (76.2mm) 3.25" (82.55mm) 3.5" (88.9mm)

3.75" (95.25mm) 4" (101.6mm)

Rods: 96"L (244cm)

0.5" (12.7mm) 0.75" (19.05mm) 1" (25.4mm) 1.25" (31.75mm) 1.5" (38.1mm) 1.75" (44.45mm)

2" (50.8mm)

Extruded Slabs: 24"W (61cm)

0.75" (19.05mm) 1" (25.4mm) 1.25" (31.75mm) 1.5" (38.1mm) 1.75" (44.45mm) 2" (50.8mm)

2.5" (63.5mm) 2.75" (69.85mm) 3" (76.2mm) 3.25" (82.55mm) 3.5" (88.9mm) 3.75" (95.25mm)

4" (101.6mm)

Extruded Sheets: 48"W x 96"L (122cm x 244cm)

0.03" (0.76mm) 0.035" (0.89mm) 0.06" (1.52mm) 0.062" (1.57mm) 0.08" (2.03mm) 0.09" (2.29mm)

0.095" (2.41mm) 0.125" (3.18mm) 0.1875" (4.76mm) 0.25" (6.35mm)

Extruded Films: 26"W (66cm)

0.002" (0.05mm) 0.005" (0.13mm) 0.01" (0.25mm) 0.02" (0.51mm)

LAST REVISED: 08/29/2025

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