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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



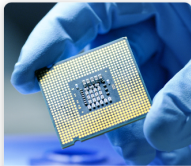
Aerospace



Chemical Process



Engineering



Semiconductor and ESD

COLORS AVAILABLE



ATTRIBUTES

	Chemical Resistance	✓
	Dielectric Properties	✓
	Heat Resistant	✓
	Dimensional Stability	✓

SHAPES

Extruded Slab	✓
Compression Sheet	✓
Extruded Sheet	✓
Extruded Film	✓
Extruded Rod	✓



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TECHNICAL SPECIFICATIONS

PROPERTY	TEST STANDARD	ENGLISH UNITS	METRIC UNITS
Mechanical			
Flexural Modulus	D790	349 kpsi	2,410 MPa
Flexural Strength - 5%	D790	13, kpsi	91 MPa
Izod Impact, notched	D256	12.92 ft-lb/in	690 J/m
Tensile Elongation @ Break	D638	60-120%	60-120%
Tensile Elongation @ Yield	D638	7.20 %	7.20 %
Tensile Modulus	D638	339 kpsi	2,340 MPa
Tensile Strength @ Break	D638	10 kpsi	69 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	30,937 [^] 9 ohm-ft	1,015, [^] 9 ohm-cm

SIZING



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Rod Sizing

48" Length

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)	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)			

96" Length

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)	2.25" (57.15mm)	2.5" (63.5mm)	2.75" (69.85mm)	3" (76.2mm)	3.25" (82.55mm)
3.50" (88.9mm)	3.75" (95.25mm)	4" (101.6mm)			

Slab Sizing

24" Length by " Width

0.25" (6.35mm)	0.375" (9.53mm)	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)	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)	

Compression Sheet Sizing

48" Length by 24" Width

0.25" (6.35mm)	0.375" (9.53mm)	0.5" (12.7mm)	0.75" (19.05mm)	1" (25.4mm)
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Extruded Sheet Sizing

96" Length by 48" Width

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)		



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Film Sizing

26" Width

0.002" (0.05mm)	0.003" (0.08mm)	0.004" (0.1mm)	0.005" (0.13mm)	0.01" (0.25mm)	0.02" (0.51mm)
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LAST REVISED: 06/06/2022

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