





## Thermalux® PSU



Thermalux® Polysulfone (PSU) is made from resin that is suitable for use in certain food contact applications, contact your local Westlake Plastics representative for specific regulatory declarations. Thermalux PSU is an amber colored, semi-transparent, heat-resistant, high performance engineering thermoplastic that offers higher heat resistance and better hydrolytic stability than polycarbonate (PC). It retains its good mechanical properties when exposed to steam and other sterilization techniques.

#### INDUSTRY

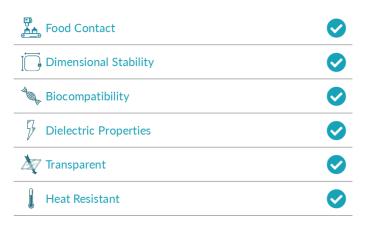




COLORS AVAILABLE



### ATTRIBUTES



### SHAPES

| Extruded Slab     |          |
|-------------------|----------|
| Compression Sheet | <b>⊘</b> |
| Extruded Sheet    | <b>⊘</b> |
| Extruded Film     | <b>⊘</b> |
| Extruded Rod      | <b>Ø</b> |
|                   |          |







# Thermalux® PSU

#### TYPICAL PROPERTIES

| PROPERTY                         | TEST STANDARD | ENGLISH UNITS               | METRIC UNITS                |  |  |  |  |  |
|----------------------------------|---------------|-----------------------------|-----------------------------|--|--|--|--|--|
| Mechanical                       |               |                             |                             |  |  |  |  |  |
| Flexural Modulus                 | D790          | 390 kpsi                    | 2690 MPa                    |  |  |  |  |  |
| Flexural Strength - 5%           | D790          | 15 kpsi                     | 106 MPa                     |  |  |  |  |  |
| Izod Impact Resistance - Notched | D256          | 1.29 ft-lb/in               | 69 J/m                      |  |  |  |  |  |
| Tensile Elongation @ Break       | D638          | 50-100%                     | 50-100%                     |  |  |  |  |  |
| Tensile Modulus                  | D638          | 359.7 kpsi                  | 2480 MPa                    |  |  |  |  |  |
| Tensile Strength @ Break         | D638          | 10.2 kpsi                   | 70 MPa                      |  |  |  |  |  |
| Thermal                          |               |                             |                             |  |  |  |  |  |
| HDT @ 264 psi                    | D648          | 345°F                       | 174°C                       |  |  |  |  |  |
| Physical                         |               |                             |                             |  |  |  |  |  |
| Moisture Absorption              | D570          | 0.030%                      | 0.030%                      |  |  |  |  |  |
| Specific Gravity                 | D792          | 1.24                        | 1.24                        |  |  |  |  |  |
| Electrical                       |               |                             |                             |  |  |  |  |  |
| Volume Resistivity               | D257          | 1 x 10 <sup>16</sup> ohm-cm | 1 x 10 <sup>16</sup> ohm-cm |  |  |  |  |  |

<sup>\*</sup>Data above is based on testing of injection molded test specimens







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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)              |                  |                 |                 |                 |  |  |  |
| 0.25" (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)        |                  |                 |                 |                 |  |  |  |
|   |                        |                  |                 |                 |                 |  |  |  |
| Compression Sheets: 24"W x 48"L (61cm x 122cm)  |                        |                  |                 |                 |                 |  |  |  |
| 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)            |                  |                 |                 |                 |  |  |  |
| Compression Sheets: 48"W x 96"L (122cm x 244cm) |                        |                  |                 |                 |                 |  |  |  |
| 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)            |                  |                 |                 |                 |  |  |  |
|   |                        |                  |                 |                 |                 |  |  |  |
| Extruded Sheets: 48                             | 8"W x 96"L (122cm x 24 | 44cm)            |                 |                 |                 |  |  |  |
| 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)  |                 |                 |  |  |  |







### Thermalux® PSU

Extruded Films: 26"W (66cm)

0.002" (0.05mm) 0.003" (0.08mm) 0.004" (0.1mm) 0.005" (0.13mm) 0.010" (0.25mm) 0.020" (0.51mm)

LAST REVISED: 01/05/2024

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