



SubZero Engineering – Polar Panel

Model PP242480

Model PP244880



Model PP242480 (pictured)

PRODUCT SPECIFICATIONS*

- **ALUMINUM ALLOY**
- Alloy - 6063*, T6 Temper
- Yield Strength (0.2% proof test) - Mpa = 200 Ksi = 29
- Tensile Strength - Mpa = 230 Ksi = 33
- Elongation A5 minimum 10%
- Elongation A10 minimum 8%
- Elasticity E approximately 10×10^6 psi or 10,000,000 psi (or lbs/sq. in)
- Hardness - Webster Model "B" 11-12
- Flatness - .004" per inch of width
- Straightness - .0125" per foot of length, not to exceed .120 over 20 feet of length
- Twist - Twist per foot of length does not exceed .25 degrees.

ANODIZING

- All aluminum components have an etched anodized finish that is .15 - .25 mil.

PANEL COMPONENT STM or UL test Property Acrylic

- **PHYSICAL**
- D792 Density (lb/in³)
- (g/cm³)
- 0.043
- 1.18
- D570 Water Absorption, 24 hrs (%) 0.3
- **MECHANICAL**
- D638 Tensile Strength (psi) 8,000 - 11,000
- D638 Tensile Modulus (psi) 350,000 - 500,000
- D638 Tensile Elongation at Break (%) 2
- D790 Flexural Strength (psi) 12,000 - 17,000
- D790 Flexural Modulus (psi) 350,000 - 500,000
- D695 Compressive Strength (psi) 11,000 - 19,000
- D695 Compressive Modulus (psi) -
- D785 Hardness, Rockwell M80 - M100
- D256 IZOD Notched Impact (ft-lb/in) 0.3
- **THERMAL**
- D696 Coefficient of Linear Thermal Expansion
- ($\times 10^{-5}$ in./in./°F) 5 - 9
- D648 Heat Deflection Temp (°F / °C)
- at 264 psi
- 150-210 / 65-100
- D3418 Melting Temp (°F / °C) - / -
- Max Operating Temp (°F / °C) 150-200 / 65-93
- Thermal Conductivity
- (BTU-in/ft²-hr-°F)
- ($\times 10^{-4}$ cal/cm-sec-°C)
- 3.9
- 1.2
- **ELECTRICAL**
- D149 Dielectric Strength (V/mil) short time, 1/8" thick 400

- D150 Dielectric Constant at 60 Hz 4.0
- D150 Dissipation Factor at 60 Hz 0.05
- **OPTICAL**
- Light Transmission, minimum (%) 92
- Refractive Index 1.48-1.50

WEIGHT

- **PP 242480 79 lbs**
- **PP 244880 137 lbs**

DIMENSIONS

Model PP242480

- **Height 80"**
- **Width 24"**
- **Depth 24"**

Model PP244880 (not shown)

- **Height 80"**
- **Width 48"**
- **Depth 24"**

* Specifications are subject to change with out notice.
SubZero Engineering 2009 All rights reserved.