# CHO-THERM® T441
# Commercial Grade Thermal Interface Material

## DESCRIPTION

CHO-THERM T441 low-cost thermally conductive insulators are designed for applications requiring a high level of dielectric breakdown protection. CHO-THERM T441 pads provide good thermal conductivity and extremely high electrical insulation, even when used in humid environments.

Consisting of a special silicone binder loaded with aluminum oxide particles, CHO-THERM T441 pads provide outstanding isolation under most environmental conditions. They are reinforced with fiberglass cloth to provide maximum resistance to tear, cut-through and punctures due to burrs and other surface irregularities. CHO-THERM T441 material is non-nutritive and does not promote fungal growth.

## ORDERING INFORMATION

CHO-THERM T441 material is available in standard thicknesses of 0.008 inch (0.20 mm), 0.013 inch (0.30 mm) and 0.018 inch (0.45 mm), as well as custom thicknesses. An optional pressure-sensitive adhesive facilitates assembly and production. Use the diagrams below to construct the appropriate part number.

### Roll Stock

**WW — XX — YYYY — T441 — ZZ**

- **WW**: 64 = no psa; 66 = psa
- **XX** — Length: 10 = 100 ft. (30.5 m); 40 = 400 ft. (121.9 m)
- **YYYY** — Width: YY.YY = in. wide; max. 2200 = 22.00 in. (55.9 cm)
- **ZZ** — Thickness: 08 = 0.008 in. (0.20 mm); 13 = 0.013 in. (0.30 mm); 18 = 0.018 in. (0.46 mm)

### Die-Cut Shapes

**XX — YY — ZZZZ(Z) — T441**

- **XX**: Shape; 60 = Standard; 69 = custom
- **YY**: 11 = no psa; 12 = psa
- **ZZZZ(Z)**: assigned by Chomerics

| | TYPICAL PROPERTIES | T441 | | | TEST METHOD |
|---|---|---|---|---|---|
| CONSTRUCTION | Filler | | Aluminum Oxide | | — |
| | Binder | | Silicone | | — |
| | Carrier | | Fiberglass | | — |
| | Color | | Pink | | Visual |
| | Thickness, inch (mm) | 0.008 (0.20) | 0.013 (0.30) | 0.018 (0.46) | ASTM D374 |
| | Thickness Tolerance | +/- 0.001" | +/- 0.001" | +/- 0.001" | — |
| THERMAL | Thermal Impedance, @ 300 psi, °C-in²/W (°C-cm²/W) | 0.41 (2.65) | 0.56 (3.62) | 0.64 (4.14) | ASTM D5470 |
| | Thermal Conductivity, W/m-K | 1.0 | 1.1 | 1.1 | ASTM D5470 |
| | Operating Temperature Range, °C | | –60 to +200 | | — |
| ELECTRICAL | Voltage Breakdown – Dry, Vac | 8700 | 11,400 | 13,800 | ASTM D149 |
| | Voltage Breakdown – Wet, Vac | 8100 | 10,500 | 12,900 | ASTM D149 |
| | Volume Resistivity – Dry, ohm-cm | $1 \times 10^{14}$ | $1 \times 10^{14}$ | $1 \times 10^{14}$ | ASTM D257 |
| | Volume Resistivity – Wet, ohm-cm | $1 \times 10^{14}$ | $1 \times 10^{14}$ | $1 \times 10^{14}$ | ASTM D257 |
| MECHANICAL | Tensile Strength, psi (MPa) | 3200 (22.08) | 2500 (17.25) | 2000 (13.80) | ASTM D412 |
| | Elongation, % | 40 | 30 | 30 | ASTM D412 |
| | Hardness (Shore A) | 90 | 90 | 90 | ASTM D2240 |
| | Specific Gravity | 2.55 | 2.55 | 2.55 | ASTM D792 |
| | UL Recognized | | File No.E57104 | | QMFZ2 |



North America• 77 Dragon Court, Woburn, MA 01888-4014 **TEL** +(1) 781-935-4850 **FAX** +(1) 781-933-4318
Europe• Marlow, Bucks, UK **TEL** +(44) 1628 404000 **FAX** +(44) 1628 404090
Asia Pacific • Hong Kong **TEL** +(852) 2 428 8008 **FAX** +(852) 2 423 8253
South America• São Paulo, Brazil **TEL** +(55) 11 3917 1099 **FAX** +(55) 11 3917 0817

**www.chomerics.com**

North America• 77 Dragon Court, Woburn, MA 01888-4014 **TEL** +(1) 781-935-4850 **FAX** +(1) 781-933-4318
Europe• Marlow, Bucks, UK **TEL** +(44) 1628 404000 **FAX** +(44) 1628 404090
Asia Pacific • Hong Kong **TEL** +(852) 2 428 8008 **FAX** +(852) 2 423 8253
South America• São Paulo, Brazil **TEL** +(55) 11 3917 1099 **FAX** +(55) 11 3917 0817