

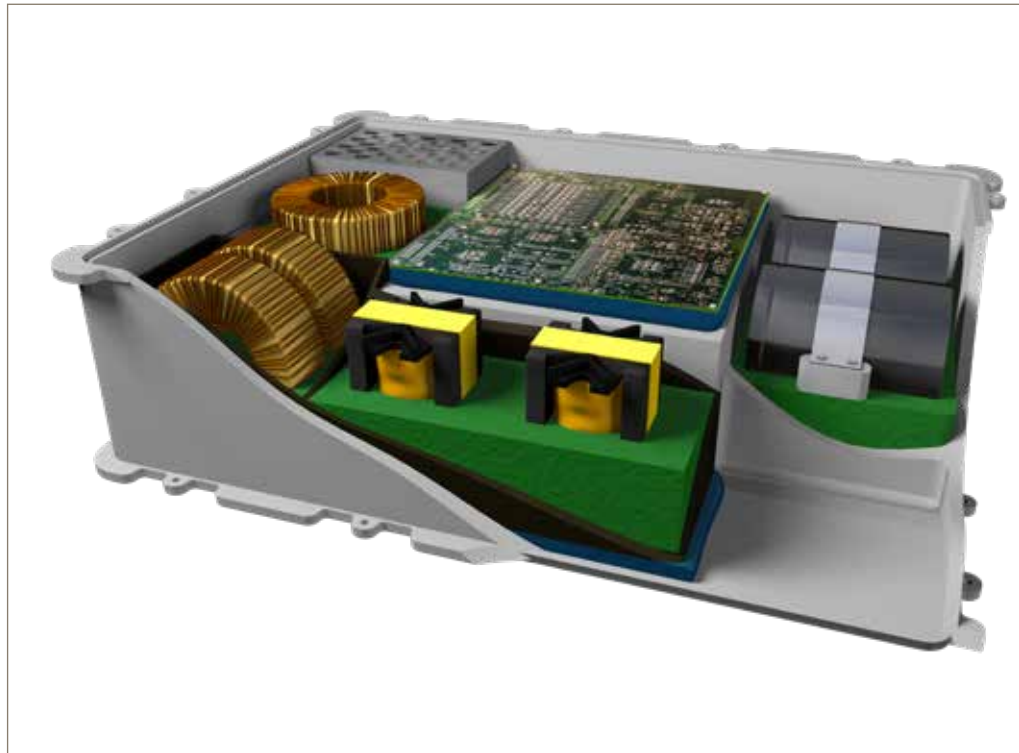
CoolTherm® Materials

Inductor / Transformer Application



Output performance, not heat - CoolTherm® custom-tailored gap fillers and encapsulants improve proper heat flow in inductors and transformers, optimizing performance during charging and increasing product longevity. Since our encapsulants have a low viscosity, they flow easily into the tiniest crevices, enabling better impregnation of irregularly-shaped magnetic components and helping to reduce inductor hum. We also offer a range of gap fillers that can provide a thermal interface between your charger's magnetics and cooling plate.

Whatever your charger application requires, we can help you select the correct material and optimize your process to improve performance and lower costs.



Contact Information:

Parker LORD
Engineered Materials Group
111 LORD Drive
Cary, NC 27511-7923
USA

phone +1 877 ASK LORD (275-5673)

www.lord.com

For a listing of our worldwide locations, visit LORD.com

Reduce heat rise by up to 50°C for greater output and performance with CoolTherm materials



ENGINEERING YOUR SUCCESS.

Gap Fillers:

Get the best performance out of your components by filling in surface imperfections with a thermally conductive gap filler. They are a stay-in-place solution and cure as a gel, easing the stresses caused by thermal differences and flex.

- **Low Outgas Options:** We offer low ppm siloxane solutions for sensitive electronic applications.
- **Protect Against Shock:** Our gap fillers remain tacky and soft to dampen vibration.

Encapsulants:

Our encapsulants provide a robust thermal interface between magnetics, capacitors, switching electronics and the heat sink, resulting in a more reliable product for you and your customers. Additionally, Parker LORD encapsulants can help quiet high frequency hum.

- **Improve Performance:** Our encapsulants facilitate optimum heat transfer because of their high thermal conductivity and low viscosity.
- **Protect Electronics:** Potting and encapsulants provide protection from dust and moisture and can help reduce vibration.
- **Reduce Component Stress:** LORD encapsulants exhibit low shrinkage upon curing.

| GAP FILLERS | PRODUCT | CHEMISTRY | THERMAL CONDUCTIVITY (W/m·K) | SHORE HARDNESS (OO) | DENSITY (g/cm ³) |
|-------------|---------------------|-----------|------------------------------|---------------------|------------------------------|
| | CoolTherm® SC-1200 | Silicone | 2.0 | 82 | 2.9 |
| | CoolTherm SC-3500 | Silicone | 3.5 | 80 | 3.3 |
| | CoolTherm SC-1600 | Silicone | 3.7 | 89 | 3.3 |
| | CoolTherm SC-3000LD | Silicone | 3.0 | 75 | 2.4 |
| | CoolTherm UR-2002 | Urethane | 2.0 | 78 | 2.7 |
| | CoolTherm UR-2000 | Urethane | 2.0 | D55 | 2.6 |

- Two-Component
- Low Outgas Options
- Room Temperature and Heat Curing
- Electrically Isolative
- 1:1 Mix Ratio

| ENCAPSULANTS | PRODUCT | CHEMISTRY | THERMAL CONDUCTIVITY (W/m·K) | VISCOSITY (cP @25°C) | DENSITY (g/cm ³) |
|--------------|------------------|-----------|------------------------------|----------------------|------------------------------|
| | CoolTherm SC-305 | Silicone | 0.7 | 4,000 | 1.5 |
| | CoolTherm SC-309 | Silicone | 1.0 | 3,600 | 1.7 |
| | CoolTherm SC-252 | Silicone | 2.5 | 18,000 | 2.9 |
| | CoolTherm SC-320 | Silicone | 3.2 | 22,000 | 3.1 |
| | CoolTherm SC-324 | Silicone | 4.0 | 30,000 | 3.2 |

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