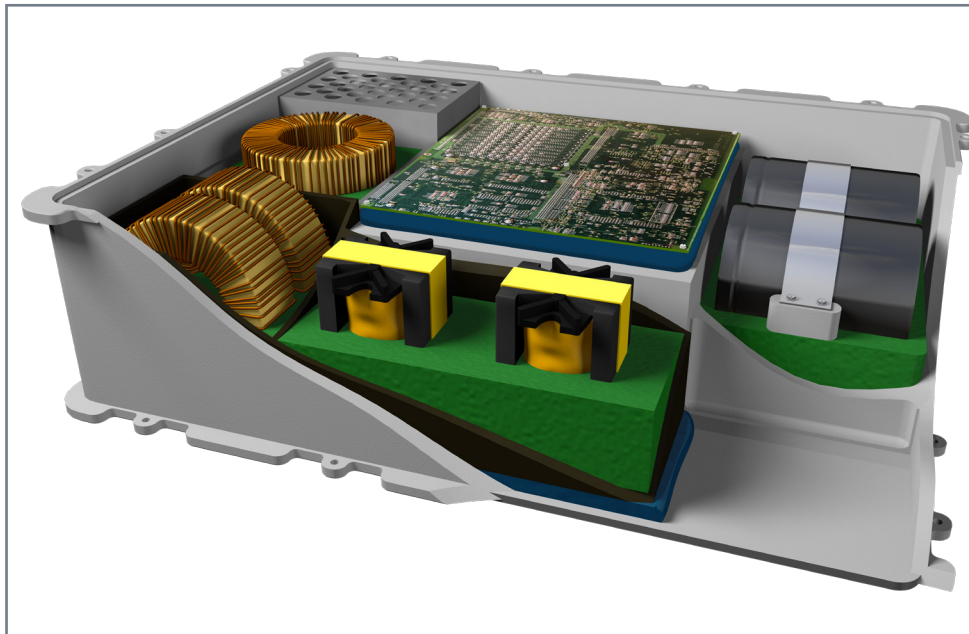


# COOLTHERM® MATERIALS

## Inductor/Transformer Application

Optimize your charging rate – 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 tiny 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.



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

## Gap Fillers

Get the best performance out of your components by filling in surface imperfections with a thermally conductive gap filler designed with electric vehicle applications in mind. Our gap fillers are available in a range of options, from flexible, low-strength options that ensure serviceability, to products with higher tensile strength and adhesion properties, providing increased strength and structure upon full cure. We also offer low ppm siloxane solutions for sensitive electronic applications.

GAP FILLERS	PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	SHORE HARDNESS (00)	DENSITY (g/cm <sup>3</sup> )
	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-3000 LD	Silicone	3.0	75	2.4
	CoolTherm SC-2000 SLW	Silicone	2.0	65	2.0
	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
- Protect Against Shock
- Damp Vibration

## Encapsulants

Our encapsulants facilitate optimum heat transfer because of their high thermal conductivity and low viscosity. Additionally, potting and encapsulants provide protection from dust, moisture and vibration. Our two-component encapsulants exhibit minimal shrinkage during cure, high dielectric strength and thermal conductivity.

ENCAPSULANTS	PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/m·K)	VISCOSITY (cP @25°C)	DENSITY (g/cm <sup>3</sup> )
	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
	CoolTherm EP-6035	Epoxy	1.0	12,000	1.6
	CoolTherm EP-340/70	Epoxy	1.5	10,000	2.2
	CoolTherm UR-389	Urethane	0.7	14,000	1.5

- Room Temperature and Heat Curing
- Electrically Isolative
- 1:1 Mix Ratio
- Improve Performance
- Protect Electronics
- Reduce Component Stress

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