

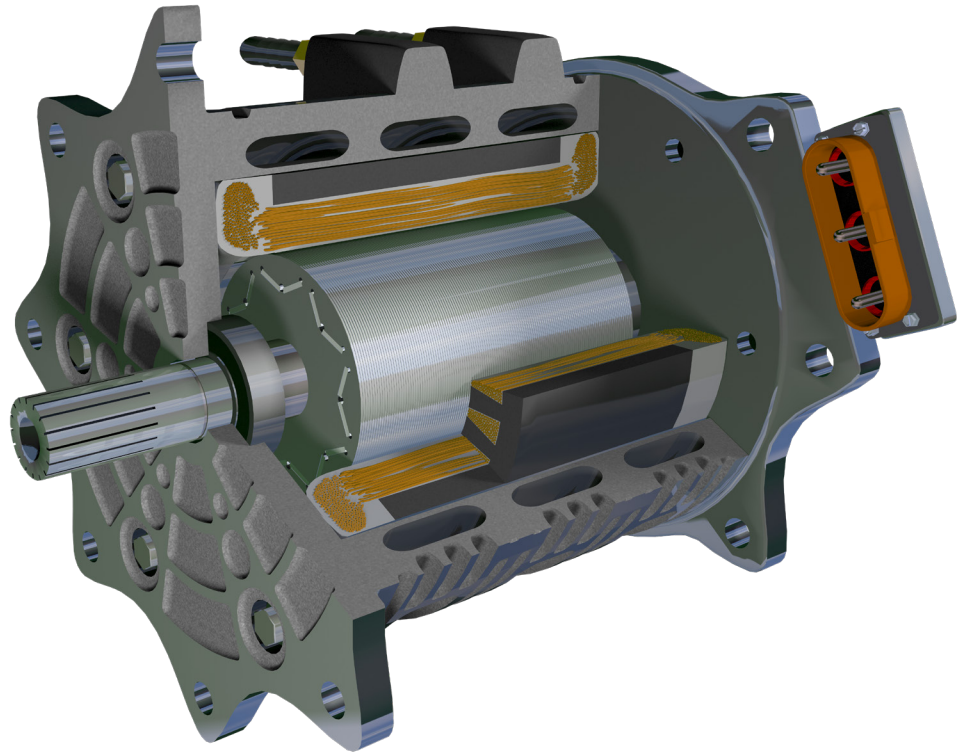
# COOLTHERM® MATERIALS

## Motor Application

Heat robs a motor of power and shortens its life - CoolTherm® conductive epoxy and silicone encapsulants help manage that heat, which enables you to increase the power density and life of your motor. Our studies have shown a temperature decrease of up to 50°C or an increase in power output up to 30% when using our CoolTherm materials.

Customer field testing has validated our studies, demonstrating significant advancements in several areas. For one, we have achieved temperature reductions exceeding 50°C in larger liquid-jacketed motors. Additionally, we have improved power density for aerospace applications and enhanced mileage and mechanical ruggedization in fleet truck hybridization.

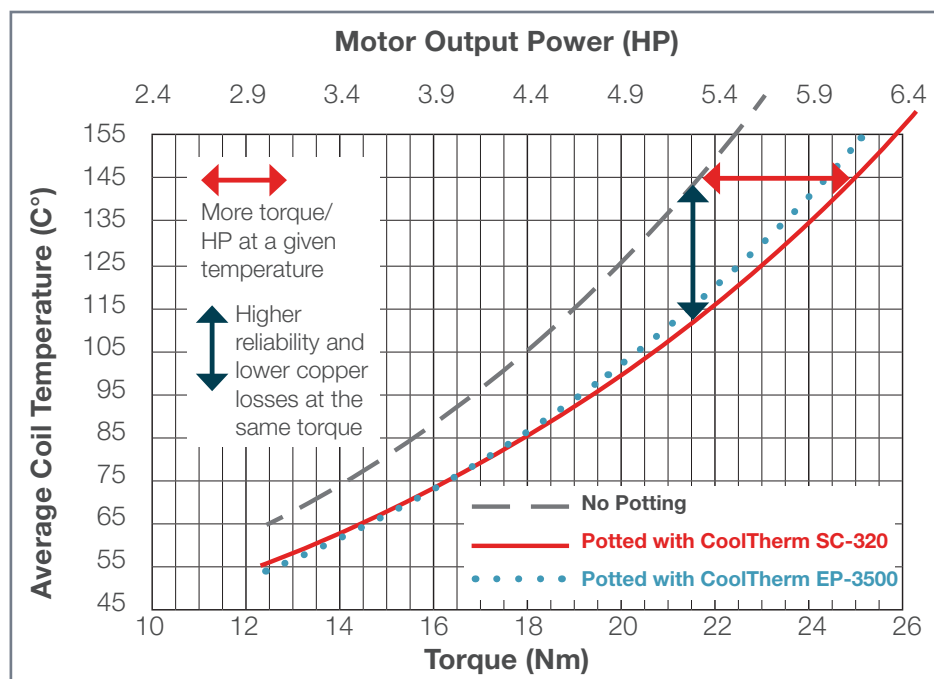
What's the best solution for your application? We can help you select the correct material and optimize your process to improve performance and lower costs. With over 40 years of industry expertise and a full product portfolio available, we can help you stick to your schedule and stay on budget with CoolTherm solutions.



**Decrease operating temperature by up to 50°C or increase power output up to 30% when using CoolTherm materials**

## 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/cm³)
	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-2000	Epoxy	1.9	1,900*	2.7
	CoolTherm EP-3500	Epoxy	3.3	8,000*	3.0

\*Viscosity cP @ 60°C

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

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