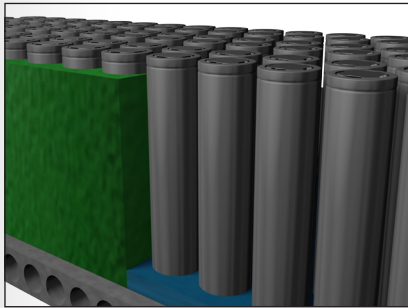
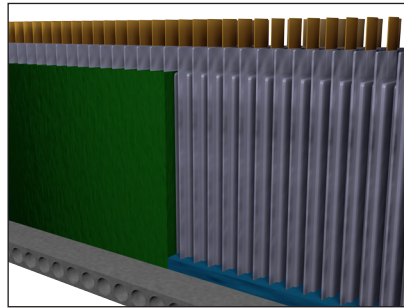


Is Heat Killing Your Battery Pack?

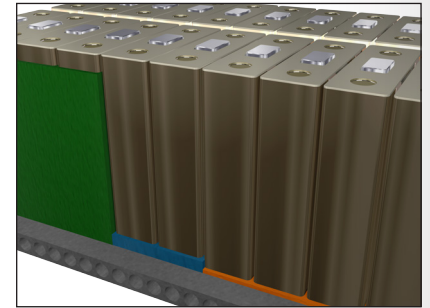
With the increase in energy density due to new battery technologies, there is now an even greater need to continually manage the heat generated during charge/discharge cycles. Our thermally conductive solutions enable proper heat flow, which results in improved thermal performance. Whether you're looking for help dealing with the heat in your battery pack, the strong bond of an adhesive or a material to fill in some gaps, we offer a robust portfolio of materials for all cell types — cylindrical, pouch and prismatic. We can help you select the correct material for your application that aligns with your cost targets and optimize your process to improve performance.



Cylindrical Battery Pack



Pouch Battery Pack



Prismatic Battery Pack



ENCAPSULANTS

Thermally connect your cells to the heat sink by encapsulating the entire pack and minimize design gaps by taking advantage of high dielectric strength.

Improve Performance: We have encapsulants that facilitate optimum heat transfer because of their high thermal conductivity and low viscosity.

Protect Electronics: Potting compounds can provide thermal shock resistance.

Reduce Component Stress: LORD encapsulants exhibit low shrinkage upon curing.

ADHESIVES

Formulated for standard MMD equipment, our adhesives provide your application with structural integrity. And, our thermally conductive adhesives not only provide mechanical rigidity but also a thermal connection where heat is a problem.

Improve Design Flexibility: No longer constrained by mechanical fixtures and given the ability to bond a wide variety of substrates, you are free to discover the possibilities.

Reduce Complexity: Reduce the need for fasteners, thereby simplifying your battery pack design, and with our thermally conductive adhesives, you may be able to optimize your cooling system.

GAP FILLERS

More is demanded of today's batteries than ever before. Get the best performance out of your batteries by filling in all of those nooks and crannies 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

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/mK)	VISCOSITY (cps @ 25°C)	DENSITY (g/cm ³)
THERMOSET SC-305	Silicone	0.7	4000	1.50
THERMOSET SC-309	Silicone	1.0	3600	1.66
THERMOSET SC-315	Silicone	1.5	3400	2.56
THERMOSET SC-252	Silicone	2.5	10,000	2.93
THERMOSET SC-320	Silicone	3.2	22,500	3.10
THERMOSET SC-324	Silicone	4.0	22,000	3.20

- Two-Component
- Room Temperature Curing
- Electrically Isolative
- 1:1 Mix Ratio

ADHESIVES

PRODUCT	CHEMISTRY	THERMAL CONDUCTIVITY (W/mK)	LAP SHEAR STRENGTH (MPa)
THERMOSET TC-2002	Acrylic	1.0	15.8
LORD Maxlok T6	Acrylic	—	19.3
LORD 406	Acrylic	—	20.7

- Two-Component
- Bond a Wide Variety of Substrates
- Room Temperature Curing
- Variable Cure Speeds

GAP FILLERS

THERMAL CONDUCTIVITY (W/mK)	SHORE HARDNESS (OO)	DENSITY (g/cm ³)
1.0	30	1.7
2.0	30	2.0
3.0	30	3.3
3.5	50	3.3
4.0	70	3.4

- Two-Component
- Low Outgas Options
- Room Temperature Curing
- Electrically Isolative
- Standard MMD Equipment
- 1:1 Mix Ratio

ABOUT LORD CORPORATION

LORD Corporation is a diversified technology and manufacturing company developing highly reliable adhesives, coatings, motion management devices, and sensing technologies that significantly reduce risk and improve product performance. For more than 90 years, LORD has worked in collaboration with our customers to provide innovative oil and gas, aerospace, defense, automotive and industrial solutions. With world headquarters in Cary, N.C., LORD has approximately 3,100 employees in 26 countries and operates 19 manufacturing facilities and 10 R&D centers worldwide. LORD actively promotes STEM education and many other community engagement initiatives. For more information, visit <http://www.lord.com>.

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For more information about our Thermal Management Materials...

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