

Aremco's Heat-Away™ greases are ceramic and metal-filled systems that offer exceptional electrical and thermal properties up to 680 °F (360 °C). These materials are used in high power electronics, heat pipes, high vacuum systems, and other heat management applications.

PRODUCT HIGHLIGHTS

Part Number	Filler	Conductivity		Vacuum Compatible	Temp. Range °F (°C)
		Electrical	Thermal		
637	Alumina		✓		550 (288)
638	Aluminum Nitride		✓		550 (288)
639	Aluminum		✓		550 (288)
640	Copper		✓		550 (288)
641	Silver	✓	✓		550 (288)
641-EV	Silver	✓	✓	✓	550 (288)
641-HT-EV	Silver	✓	✓	✓	680 (360)



Heat-Away™ 639 coats process heater to improve thermal contact.

HEAT-AWAY™ THERMALLY CONDUCTIVE GREASES

Product Number	637	638	639 ⁽²⁾	640 ⁽²⁾	641	641-EV ⁽¹⁾	641-HT-EV ⁽¹⁾
Filler	Alumina	Aluminum Nitride	Aluminum	Copper	Silver	Silver	Silver
Temperature Resistance, °F	-60 / +550	-60 / +550	-60 / +550	-60 / +550	-60 / +550	-60 / +550	-23 / +680
Temperature Resistance, °C	-51 / +288	-51 / +288	-51 / +288	-51 / +288	-51 / +288	-51 / +288	-5 / +360
Thermal Conductivity, W/m-K	0.475	2.23	3.04	4.68	5.58	5.58	5.58
Dielectric Strength, volts/mil	300	300	40	4	4	—	—
Volume Resistivity, ohm-cm ⁽³⁾	10 ¹⁴	10 ¹⁴	10 ⁴	10 ³	< 0.0002	< 0.0002	< 0.0006
Chemical Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Water Absorption	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Solids, %	100	100	100	100	100	100	100
Specific Gravity, g/cc	2.42	2.27	1.35	1.33	3.90	4.30	4.20
Color	White	Gray	Aluminum	Copper	Silver	Silver	Silver

Reference Notes

⁽¹⁾ Heat-Away 641-EV and 641-HT-EV are electrically and thermally conductive greases rated for high vacuum systems.

Temperature, °C (°F)	Vapor Pressure (Torr)	
	641-EV	641-HT-EV
20 (68)	3 × 10 ⁻¹⁴	≤ 4 × 10 ⁻¹⁵
50 (122)	2 × 10 ⁻¹²	Not Measured
100 (212)	1 × 10 ⁻⁹	≤ 2 × 10 ⁻¹⁰
200 (392)	2 × 10 ⁻⁶	≤ 3 × 10 ⁻⁷

⁽²⁾ Caution: Exposure to voltages in excess of rated maximum may cause a permanent electrical leak path.

⁽³⁾ Volume resistivity is measured < 0.002" thick after exposure to 500 °F.

Refer to Price List for complete order information.

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The user assumes all risk of use or handling whether or not in accordance with directions or suggestions, or used singly or in combination with other products.