

Henkel Thermal Interface Solutions for EV Power Conversion Systems

Our broad solution portfolio has been specifically designed with a focus on:



System Cost

» Short cycle times» Automated production process



Safety & Reliability

- » Thermal management
- » Oil / ATF resistance



Lifetime Performance

- » Shock and vibration stability
- » Harsh environmental resistance



Vehicle Integration

- » Smaller size higher packing density
- » Consolidation OBC / inverter



Driving e-Mobility, together.

LOCTITE.

Henkel Thermal Interface Solutions for EV Power Conversion Systems

GAP FILLER[®]

| Product | Chemistry | Curing | Thermal conductivity | Key properties | |
|----------------------|-----------|-------------|-------------------------|--------------------------------|----------------------------------|
| BERGQUIST TGF 1500 | Silicone | RTV or heat | 1.8 W/mK | » Low siloxane volatility | » High temperature resistance |
| BERGQUIST TGF 3500LV | Silicone | RTV or heat | 3.6 W/mK | » Low Young's Modulus | » High dielectric isolation |
| BERGQUIST TGF 7000 | Silicone | RTV or heat | 7.0 W/mK | » Highest thermal conductivity | » Controlled volatility |

GAP PAD[®]

| Product | Thermal conductivity | Dielectric break- down voltage | Hardness / Young's modulus | Key properties | |
|------------------------|-------------------------|-----------------------------------|-------------------------------|---------------------|------------------------|
| BERGQUIST TGP 1000V0US | 1.0 W/mK | 6,000 V at 0.5 mm | Shore 00 = 5/YM = 8 psi | » Ultra soft | » Self-tacky one side |
| BERGQUIST TGP 3000 | 3.0 W/mK | 5,000 V at 0.5 mm | Shore 00 = 15/YM = 16 psi | » High compliant | » Low volatility |
| BERGQUIST TGP HC5000 | 5.0 W/mK | 5,000 V at 0.5 mm | Shore 00 = 35/YM = 17.5 psi | » Highest compliant | » Low volatility resin |

POTTING MATERIALS

| Product | Chemistry | Thermal conductivity | Viscosity (mixed) | Key properties | |
|-------------------------------|--------------|-------------------------|-----------------------|---------------------------------------|---|
| BERGQUIST TGF 1400SL | Silicone | 1.4 W/mK | 5,000 mPa·s | » Self leveling | » Low volatility |
| LOCTITE SI 5631 ² | Silicone | 1.0 W/mK | 5,000 mPa·s | » Excellent cavity filling | » Flexible & robust |
| LOCTITE EA 9496 ¹ | Ероху | 1.7 W/mK | 15,000 – 40,000 mPa·s | » RTV and warm cure | » Low shrinkage |
| SONDERHOFF FERMADUR SERIES | Polyurethane | 0.2 – 0.9 W/mK | 500 – 200,000 mPa·s | » RTV and warm cure » Customizable | » UL94 V-0 Flame Retardancy » Multi-substrate adhesion |

THERMALLY CONDUCTIVE ADHESIVES

| Product | Chemistry | Curing | Thermal conductivity | Key properties | |
|----------------------|-----------|---------------------------------------|-------------------------|--------------------------------|--------------------|
| BERGQUIST TLB SA3500 | Silicone | Heat 125 °C 20 min / 150 °C 10 min | 3.5 W/mK | » UL94 V-0 Flame Retardancy | » Good flexibility |
| BERGQUIST TLB EA1800 | Ероху | RTV | 1.8 W/mK | » UL94 V-0 Flame Retardancy | » High strength |

No Number: Available globally | 1: Available only in APAC, EU | 2: Available only in APAC

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