AUTOMOTIVE DISPLAY SOLUTIONS

THERMAL INTERFACE MATERIALS

Tackling the Heat of Automotive Displays

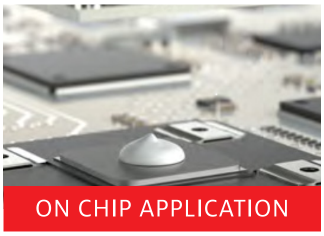
Henkel's BERGQUIST® brand of highly-engineered, thermally-conductive liquids are specifically designed to support optimized dispensing control with excellent thermal and mechanical performance. Dispensed in a liquid state, the material creates virtually zero stress on components and very suitable for heat dissipation generated from electric control units or LED backlight units in Automotive Displays. It can be used to interface and conform to the most intricate topographies and multilevel surfaces.

Key Components & Typical applications

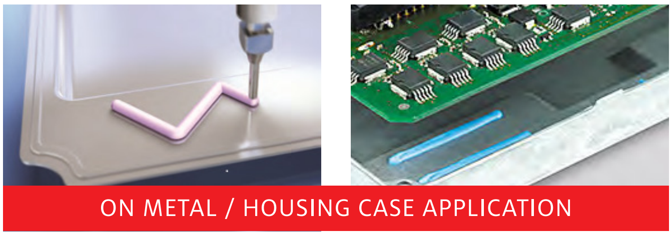
Center Information Displays / Cluster Panels / Head Up Displays

Application on:

- Control Unit
- Graphic Card
- LED backlight unit



ON CHIP APPLICATION

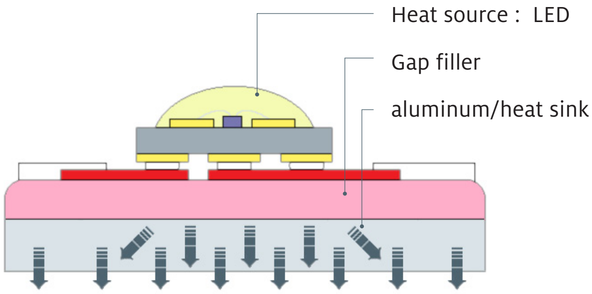


ON METAL / HOUSING CASE APPLICATION

PRODUCT PORTFOLIO
GAP FILLER/CGEL

BERGQUIST® GAP FILLER series are two-part, liquid,thermal conductive gap filling material. The mixed material will cure at room temperature or can be accelerated with the addition of heat. After curing, BERGQUIST® GAP FILLER provides a soft, form-in place elastomer that is ideal for fragile assemblies or for filling intricate air voids.

BERGQUIST® LIQUI FORM CGEL series are 1 part and highly conformable gel and have enhanced vertical gap stability plus high thermal conductivity. The materials are cure-in place elastomer and require no postcuring or mixing.



Heat Transmission Mechanism

The liquid approach from Henkel offers infinite thickness variations with little to no stress to sensitive components during assembly as well as ultra-conforming, excellent wet-out and no pump out performance.

LIQUID PRODUCT	DESCRIPTION	CURE TYPE	CURE SCHEDULES	VISCOSITY	THERMAL CONDUCTIVITY (W/m-K)	VOLUME RESISTIVITY (Ω-m)	SHELF LIFE (months)
BERGQUIST® GAP FILLER TGF 1500	Two-part, liquid gap-filling material with high-shear thinning for ease of dispensing	RT or Heat	5 hr. at 25°C 10 min. at 100°C	250,000 cP, As Mixed	1.8	1 X 10^{10}	6
BERGQUIST® GAP FILLER TGF 1500LVO	Two-part, liquid gap-filling material with significantly lower levels of silicone outgassing	RT or Heat	8 hr. at 25°C 10 min. at 100°C	75 Pa-s, High Shear	1.8	1 X 10^{10}	6
BERGQUIST® GAP FILLER TGF 3500LVO	High-performance, two-part, liquid gap-filling material with significantly lower levels of silicone outgassing	RT or Heat	24 hr. at 25°C 30 min. at 100°C	45 Pa-s, High Shear	3.5	1 X 10^{10}	5
BERGQUIST® GAP FILLER TGF 3600	High-performance, two-part, liquid gap-filling material with exceptional softness	RT or Heat	15 hr. at 25°C 30 min. at 100°C	150,000 cP, As Mixed	3.6	1 X 10^{9}	5
BERGQUIST® GAP FILLER TGF 4000	High-performance, two-part, liquid gap-filling material	RT or Heat	24 hr. at 25°C 30 min. at 100°C	50 Pa-s, High Shear	4.0	1 X 10^{10}	5
BERGQUIST® LIQUI FORM TLF 3500CGEL	High-performance, one-part, cured gel with thixotropic properties	–	–	40 g/min., Dispense Rate	3.5	1 X 10^{11}	6
BERGQUIST® LIQUI FORM TLF 4500CGEL SF	High-performance, one-part, cured gel with thixotropic properties, Silicone free	–	–	45 g/min., Dispense Rate	4.5	1 X 10^{10}	6

Henkel has a broad portfolio of Thermal interface material, please visit our Thermal Interface material webpage for your further reference.

Reach out to our experts to partner up for thermal applications in automotive electronics.

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