TennVac
EMI / Thermal / RF
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Max-Grease Thermally Conductive Grease

General Usage:

Max-Grease is high thermally conductive grease, it is a silicone based and filled with high performance blended thermally conductive metal oxide. It is an idea solution for CPU and high rating integrated circuits, the particles fill the small gap in the structure and provide a better junction for thermal conductivity which can enhance the thermal module performance.

Benefit:

- High thermal conductivity.
- Low bleeding, good wetting, could apply for screen printing.
- High electrical insulation.
- Wide operation temperature range.
- High chemical stability and reliability.

Typical Applications:

- Semi-conductors and heat sink
- Power module
- CPU and GPU

Typical Properties:

Properties	Test method	TG-1000	TC-5002	TC-5006	TSG-6001	TSG-6003	TC-7013
Resin		1 comp. silicone	1 comp. silicone	1 comp. silicone	1 comp. silicone	1 comp. silicone	1 comp. silicone
Filler		Metal oxide	Metal oxide	Metal oxide	Metal oxide	Metal oxide	Metal oxide & Metal powder
Color	Visual	Light grey	Grey	Grey	Light grey	Grey	Grey
Viscosity (25℃)	Brookfield RVF, #7	Non flowing	Non flowing	Non flowing	Non flowing	Non flowing	Non flowing
Specific Gravity		2.8	3.24	3.4	2.98	3.4	2.3
Solvent Content (%)		none	none	none	none	none	none
Operation Temperature (℃)		-40~+150	-40~+150	-40~+150	-45~+200	-45~+200	-40~+150
Physical properties							
Thermal Conductivity (W/mK)	ASTM D5470	1.5	2.1	3.0	1.6	3.25	3.5
Penetration,10-1 ,mm	GB/T 269-91	180~200	<200	<200	180~200	180~200	180~200
Dielectric Strength (V/mil)	(ASTM D217)	220	220	220	220	220	200
Volume Resistance (ohm-cm)	ASTM D149	3×10^{14}	3×10^{14}	9×10^{13}	3×10^{12}	3×10^{12}	1.5×10^{8}
Reliability properties							
Bleed (%)	200℃,24 hrs	0.01	0.01	0.01	0.01	0.01	0.01
Evaporation (%)	200℃,24 hrs	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Thermal Cycle (-%)	25℃/30~80℃ /30 min. 100 cycles	No Thermal Impedance Degradation	No Thermal Impedance Degradation	No Thermal Impedance Degradation	No Thermal Impedance Degradation	No Thermal Impedance Degradation	No Thermal Impedance Degradation

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