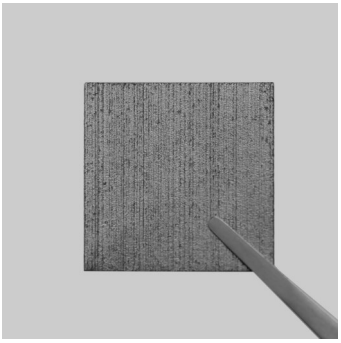
GT50

Soft and Elastic Graphene Enhanced Thermal Interface Material

Trademark: GT-TIM



Features:

- High Thermal Conductivity
- Low Effective Thermal Resistance
- High Compressibilty and Ultra Light

Applications:

Thermal Burn-In, IC Thermal testing, 5G devices, GPU, CPU, RF, Opto module, IGBT, LED and Power module cooling

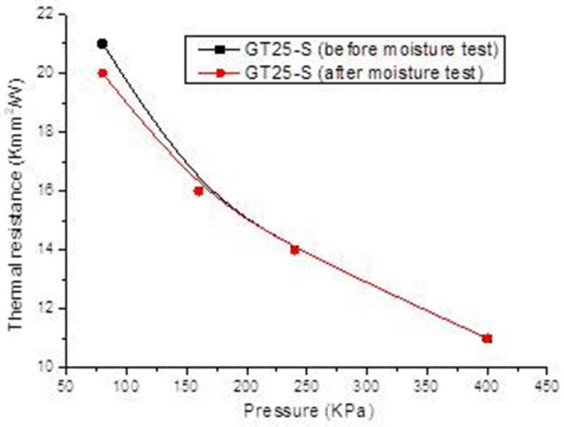
Description:

GT50 is a graphene enhanced thermal Interface material. It has very low effective thermal resistance (12 kmm^2 / W at 275KPa). Moreover, the GT50 has advantages of low density, low complexity during assembly and good maintainability. GT50 opens new opportunities for addressing large heat dissipation issues in electronics and other high power driven systems.

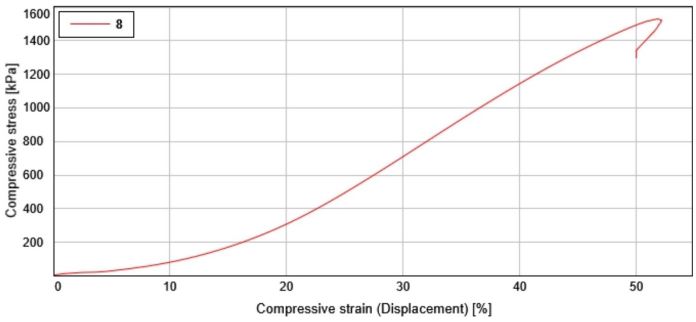
Physical Properties	Value	Units	Test Method
Bulk Thermal Conductivity	50 ± 5 (275KPa, 300μm)	W / mK	ASTM5470
Effective Thermal Resistance	12 ± 1 (275KPa, 300μm)	Kmm^2 / W	ASTM5470
Thickness Range for Production	0.2 - 2	mm	Micrometer
Thickness Tolerance	< 10	%	Micrometer
Pad Size	Up to 55 * 55	mm	-
Compressibility	> 30	%	-
Compressive Strength	1100 ± 50 (300μm)	kPa	At 50% compression
Recovery	> 50	%	-
Tensile Strength	50 ± 20	kPa	Tensile tester
Surface Roughness (Ra)	5 ± 3	μm	Wyko NT1100 optical profilometer
Surface Roughness (Rz)	30 ± 15	μm	Wyko NT1100 optical profilometer
Application Temperature	-40 to 200	°C	-
Flammability	V - 0		UL94
Specific Heat	0.25 ± 0.05	J / g.K	Hotdisk
Density	0.25 ± 0.05	g / cm^3	Balance and Micrometer
Color	Grey	-	Visual

GT50

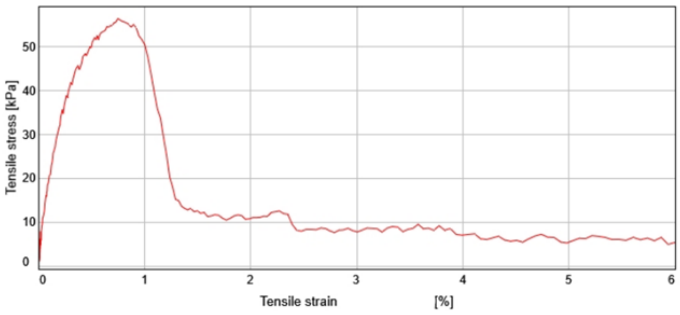
Effective resistance change vs pressure before and after the 85^{0}C / 85% Rh testing for a 300µm pad



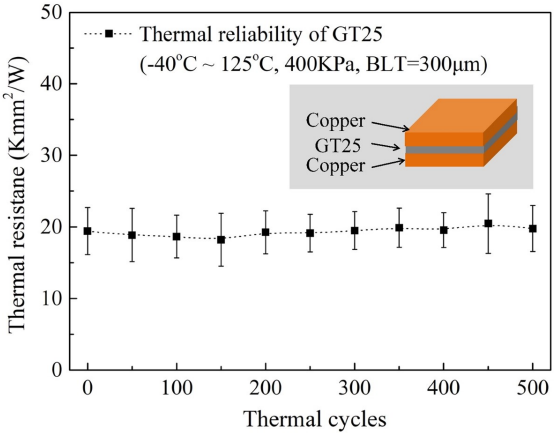
Compressive stress vs strain Curve at 50% compression (300µm)



Tensile strength



Effective thermal resistance vs number of cycles during temperature cycling up to 500 cycles with 10 Psi pressure.



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