

# XGTIM<sup>®</sup> Thermal Compound

*Superior Thermal Performance With 30% Less Material*

THERMAL CONDUCTIVITY

ELECTRICAL/EMI

LIGHT WEIGHTING

There are consistent demands for greater thermal performance in the electronics, automotive electrical components and lighting industries. In particular, the electronics industry continues to process a faster signal in smaller packages with a longer lifespan. Inevitably these advancements lead to a common problem, an increase in heat output.

*What if you could transfer heat output to increase the performance, power and overall lifespan of your product?*

The **XGTIM<sup>®</sup> GR3** thermal compound, formulated with high-quality graphene, was developed to significantly improve thermal performance targets by:

- Uniformly distributing heat more efficiently than a traditional thermal grease
- Penetrating very small voids and microscopic surfaces to deliver better contact
- Enabling thinner bond lines to reduce the amount of material required
- Reducing the need for costly cooling components

**XGTIM GR3** has 5–50 times greater intrinsic thermal conductivity than common ceramic fillers and more expensive metal fillers.

TYPICAL PROPERTIES	XGTIM GR3
Appearance/Form	Gray Paste
Viscosity (Cp)	120,000
Specific Gravity	2.6
Thermal Resistance (K*cm <sup>2</sup> /W)	0.16
Thermal Conductivity (W/m*k)	1.6
Bond Line Thickness (um)	10

## PRODUCT APPLICATION

**XGTIM GR3** can be applied via dispense or stencil printing methods. No curing is required. This thermal compound flows under low pressure (typically 20 psi) achieving a thin bond line and a low thermal impedance at the interface.

## PRODUCT HANDLING & SAFETY

Prior to use, hand stirring of material may be needed due to age or storage of the material. Product containers should be stored tightly sealed in a clean and stable environment at room temperature. This product should be used within 12 months from date of manufacture. Please read the Safety Data Sheet for safety and handling information.

## WHY XG SCIENCES?

XG Sciences<sup>®</sup> specializes in formulating advanced materials that amplify the performance of your products. Serving over 1,000 clients across 47 countries, our high-performance materials are proven to enhance manufacturing processability and the mechanical, thermal, electrical and barrier properties of your base materials. XG uses proprietary technology to manufacture over 400 metric tons of graphene nanoplatelets, enabling the formulation of more than 80,000 metric tons of advanced materials each year.

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