

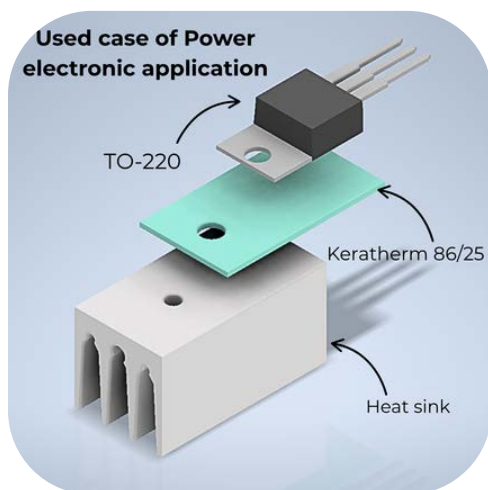
Application note: Efficient heat dissipation for TO components

Efficient cooling and electrical insulation in one - component-specific thermal conductive films for e.g. TO-220 and other power semiconductor packages.

Application

Standard packages such as **TO-220** or **TO-247** are widely used in power electronics, for example in power supply units, inverters, chargers or motor controllers. In order to cool these components efficiently, effective thermal contact with the heat sink is crucial - in addition, electrical insulation between the semiconductor and the heat sink must be ensured.

Our solution: TIMs perfectly adapted to common standard enclosures

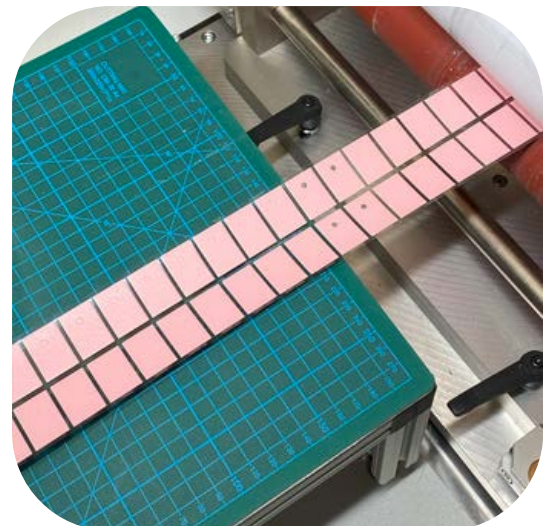


Kerafol manufactures a range of thermally conductive and electrically insulating materials (so-called "TIMs"). Some of these have been specially developed for the use of semiconductors in TO packages. The KERATHERM 86/25 film, which was developed in 2024, is new to the market. When developing this film, a good balance of high thermal conductivity and high dielectric strength was deliberately ensured in order to be able to cover the majority of performance classes with just one material.



Did you know?

With the new automatic die-cutting machine, up to 20.000 TO films can be produced per hour.



Advantages at a glance

ADVANTAGE	BENEFIT
HIGH THERMAL CONDUCTIVITY	Efficient heat Transfer from the chip to the cooling surface
ELECTRICAL INSULATION	Protection against short circuit
STANDARDIZED FIT	No cutting to size required by the customer - simple installation thanks to prefabricated contour
INDUSTRIALISATION	Film can be supplied in rolls and is suitable for automated application using pick & place systems



Have we piqued your interest?

Visit our website and discover our versatile range of high-quality film types for a wide variety of performance requirements. We will be happy to advise you personally and help you with your film selection.

We also produce small batches and prototypes without tooling costs.