

Key Features and Benefits

- High thermal conductivity, low stress, low modulus
- No sedimentation, room temperature storage
- Maintains its shape and does not cure during use, allowing for easy rework
- Moldable, easily fills thick and irregular gaps
- Excellent high & low temperatures resistance, weather fastness, aging resistance and electrical insulation

Description

PAKCOOL® TG-590 series moldable thermally conductive putty features high thermal conductivity. It is particularly suitable for applications with large and irregular interface gaps. Its high compressibility allows the product's thickness to deform by more than 50%, enabling users to mold it into desired shapes. When applied between cooling-required electronic components and heat sinks/casings, it ensures close contact, minimizes thermal resistance, and rapidly reduces the temperature of the components. This not only prolongs the lifespan of the electronic components but also enhances their reliability. This product does not cross-link (cure), resulting in low stress during use, facilitating operations in electronic assembly processes when modifications or replacements of heat sinks are needed.

Applications

- Power modules
- Inverters
- Power supply modules
- Electronic control units
- Motor controllers
- Communication devices
- Solar cell panels

Technical Parameters

Typical Properties	TG-590	Test Methods
Color	White, Light Gray	Visual
State	Soft-solid	Visual
Thermal Conductivity (W/m·K)	9.0	ASTM D5470
Density (g/cm ³)	3.70±0.40	ASTM D792
Weight Loss (%@150°C×3hrs)	≤0.90	ASTM D792
UL Flammability Rating	V-0	UL 94
Continuous Use Temperature (°C)	-50 ~ +150	--

Note: Data is for guidance only and should not be used as product specifications.

Precautions

- If the material of the device is oil absorbing, it will make the putty become thicker and dry. Therefore, the surface needs to be treated, or use our company's one-part products as primer.
- Clean the application surfaces, remove enough product and mold into the desired shape. Place it between the electronic components requiring cooling and the heat sink/casing. Apply slight pressure to ensure close contact. After each use, seal the product for future use.

Storage & Logistics

- Available in 1kg cans, 5kg, and 20kg barrels, or customized as per customer requirements.
- Non-toxic, non-flammable material, shelf life of 12 months at room temperature. If slight oil seepage occurs, knead several times for uniformity before reuse, this does not affect product performance.
- Can be transported as general liquid chemicals.

The data of this specification are obtained under laboratory conditions. However, because of the difference of use environment, process and so on, it can not guarantee the correctness and applicability of the product in some usage and use. When using, be sure to test to confirm the product suitable for your purpose. If you have any problems in using this product, please contact our technical department. We will do our best to help you.