

# TECHNICAL DATA SHEET

# Thermal conductive paste **Copper**

An advanced technological solution that ensures exceptional cooling performance thanks to its thermal conductivity of approximately ~3.1 W/mK. Designed for use with copper heat sinks, the paste efficiently transfers heat, improving the performance of processors, power circuits, and other electronic components. Thanks to its thermal stability and dielectric properties, it is an ideal choice for both professionals and technology enthusiasts.

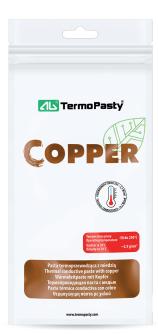
## **Product features:**

- thermal conductivity ~3.1 W/mK,
- high temperature resistance,
- good dielectric properties,
- versatile applications,
- easy application,
- compliance with RoHS directive.

#### **Applications:**

- cooling systems for computers and industrial devices,
- vacuum solar collectors,
- components requiring high-temperature resistance.

Physicochemical properties	
Appearance	Copper paste
Density at 20°C	2.9 g/cm <sup>3</sup>
Thermal conductivity	~3.1 W/mK
Operating temperature range	-50°C to 250°C
Melting temperature	-50°C
Ignition temperature	350°C
Evaporation	Does not evaporate
Viscosity	Does not flow
Thixotropic index	380±10
Volume resistivity (ASTM D257)	$3.8^{*10^{12}} \text{ p}_{v}\Omega \times \text{m}$ $3.8^{*10^{14}}\Omega \times \text{cm}$
Dielectric loss factor tg $\delta$ (ASTM D150)	0.013 (120 Hz) 0.01 (1 kHz) 0.005 (10 kHz) 0.003 (100 kHz)
Relative dielectric permeability $\epsilon_r$ (ASTM D150)	13.6 (120 Hz) 13.6 (1 kHz) 13.5 (10 kHz) 13.3 (100 kHz)
Shelf life	3 years





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### **Compatibility:**

Copper Paste is recommended for use with copper heat sinks. It is not recommended to use copper-based paste with aluminum heat sinks due to the risk of galvanic corrosion. For aluminum heat sinks, consider other products from AG TermoPasty's range, such as Extreme, Gold, or Silver.

Application method	
Machine application	Yes
Syringe	Yes
Stencil	Yes
Spatula	Yes

#### **Usage instructions:**

# Restricted to professional users. Read SDS carefully prior to use.

Before application, ensure that surfaces are clean and dry. Apply a thin, even layer of paste on one of the contact surfaces using a spatula or applicator. Use only as much paste as necessary to minimize thermal resistance. Then, mount the heat sink or another cooling element according to the manufacturer's recommendations.

## Package

Syringe

4 g (ART.AGT-060) - 5 pcs.\* 15 ml (ART.AGT-061) - 2 pcs.\*

\*Quantity of pcs. in a bulk package

## Storage:

Store in a well-ventilated, cool, and dry place. Keep containers tightly sealed when not in use. Protect from direct sunlight.

## **Technical support:**

AG TermoPasty provides technical support, answering questions about the technical specifications and applications of our products. Please contact us via email at info@termopasty.pl.

#### Note:

The data presented in this document reflect our current state of knowledge and describe the typical properties and applications of the product. However, the responsibility for determining the suitability of this product for specific applications lies with the user. AG TermoPasty is not liable for the results of the product's use, as the conditions of its application are beyond our control.