FACT SHEET

ICT-IP50/60

The ICT-IP50 and 60 * series is a cost-efficient, electric, non-insulating, high-performance phase change material enriched with a high heat conductive graphite filler.

PHASE CHANGE MATERIALS (ELECTRICALLY CONDUCTIVE)

DESCRIPTION

The ICT-IP50 and 60 * series is cost-efficient, electrically non-insulating and enriched with a anisotropic high heat conductive graphite filler, solvent-and silicone-free high-performance phase change material.

The product group is divided into:

1. **ICT-Ip50** (temperature phase Change 50 °c) * and **Ip60** (temperature phase change 60 °c)

and includes three total units:

ICT-IP50 (60)-G05-AL2 | ICT-IP50 (60)-G06-AL2 | ICT-IP50 (60)-G13-AL2

All three products differ only by the different 2-fold or 4-ply layer thickness.

An efficient, thermal connection to the contact surfaces is only possible by the intake of an absolutely uniform coating of the phase change material on both sides of the subtrate liner.

Through the development of this unique formulation, the interface is already providing a very efficient thermal transmission by phase change at normal operating temperatures, where a uniform connection line is maintained during the expansion process. During the temperature stroke, the air trapped in the surface is efficiently expelled to the outside; With the result that any surface irregularities or flatness conditions that are present beyond the interface can be minimised.
ICT-IP 50 and 60 * can also be produced by several consecutive and technically mature production steps in different material thickness **ICT-Ip50 (60)-G05-AL2 | ICT-IP50 (60)-G06-AL2 | ICT-IP50 (60)-G13-AL2** and with the inclusion of other other aluminium substrate carrier thicknesses.

With this thermal interface solution, IGBT power modules, discrete semiconductors, LEDs, microprocessors or any other type of heat generation can be successfully deheated.

With the different available material thicknesses it is also possible to cover a wide range of insulated power supplies. Only through efficient and reliable contact connection between heat generation and heat sink can therefore also be an optimal thermal in the heatsink or the housing tray.

TYPICAL PROPERTIES

Operating temperature	**from -40 to 140 °C**
Thermally conductive	**Yes**
Thermal conductivity	**220 W/m*K**
Thermal resistance (inch² / 645,16mm²)	**0.01 0.01 0.01**
Electrically conductive	**Yes**
Color	**Black**

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FEATURES

- Silicone free
- Guaranteed Layer Thickness
- With double (h) or quadruple (H2) wax coating
- Low-cost "drop-in-place" solution
- Fully customer-centered for specific requirements
- Low Thermal Impedance
- Excellent mechanical properties
- Solutions for many types of surfaces
- Excellent replacement for thermal paste
- Only low tightening torque required
- Fast, clean and process-safe pre-assembly by partial adhesive strips on the outside areas of the Tims
- Material can be interchangeable without surface treatment
- Easy cleaning by Isopropyl alcohol

DELIVERY FORMS / APPLICATIONS

- Other coating thicknesses can also be requested
- Roll lengths and widths available according to customer requirements (from 15 mm width)
- In roll form, dimensions according to customer specification (drop & place) with or without partial adhesive liner both variants available on reel, also continuously available unilaterally
- Fast, clean and process-safe pre-assembly by partial adhesive strips on the outside areas of the Tims
- Standard sheet Sizes-sheets | Standard DIN A4/30 cm x 60 cm or (40 cm x 60/100 cm)
- In blanks and shapes according to customer specification roll/loose or on carrier (Kisscut)
- Depending on customer requirements

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