

## FACT SHEET

# ICT-DP60



The ICT-DP60 series is a high-performance, electrically insulating, heat conductive, solvent-and silicone-free hi-performance phase change material that uses a Kapton® MT-polyimide film as a thermally conductive substrate carrier.



PHASE CHANGE MATERIALS (ELECTRICALLY INSULATING)

## DESCRIPTION

The ICT DP60 series is a high-performance, electrically insulating, heat conductive, solvent-and silicone-free High-performance phase change material that uses a Kapton® MT-polyimide film as a thermally conductive substrate carrier.

The product group comprises a total of four units:

**ICT-Dp60-L05-K1|ICT-Dp60-L05-K1,5 | ICT-Dp60-L05-K2|ICT-Dp60-L05-K3**

The connection of thermally conductive Kapton® MT-film as heat-conductive substrate carrier and uniform thickness coating of the thermoplastic, thermally conductive ICT Dp60 on both sides, guarantee an efficient thermal transfer before and during phase change, as well as during normal operating temperatures during operation. An efficient thermal connection to the contact surfaces is only possible by the implementation of an absolutely uniform coating of the ICT-Dp60 phase change material on both sides of the substrate liner.

Through the development of this unique formulation, the ICT-Dp60 already offers a very efficient thermal transmission by phase change at normal operating temperatures, where a uniform connection line is maintained during the expansion process.

The result is that air is efficiently expelled and therefore any surface irregularities or flatness conditions that are present on the interface can be minimised.

With the help of this thermal interface solution, for example, 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 non-electrically insulated power supplies.

Only through efficient and reliable contact connection between heat generation and heat sink can an optimal thermal be carried out in the heat sink or the housing tray.

## TYPICAL PROPERTIES

<b>Operating temperature</b>	from -60 to 140 °C
<b>Thermally conductive</b>	Yes
<b>Thermal conductivity</b>	0 W/m*K
<b>Thermal resistance (inch<sup>2</sup> / 645,16mm<sup>2</sup>)</b>	0.12 0.16 0.21 0.29
<b>Dielectric strength</b>	6000 kV (AC)
<b>Dielectric breakdown voltage</b>	6000.00 kV/mm
<b>Electrically conductive</b>	No
<b>Flammability (UL 94)</b>	94 V0
<b>Color</b>	Orange (matte)

## FEATURES

- › Silicone free
- › Guaranteed Layer Thickness
- › Cost-effective drop-in-place solution
- › Fully customer-centered for specific requirements
- › Low Thermal Impedance
- › Excellent mechanical and electrical insulating 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
- › Non-combustible according to UL 94 V0 Kapton MT UL registration (file.-No. E39505 du Pont)

## DELIVERY FORMS / APPLICATIONS

- Other coating thicknesses can also be requested on request
- Roll lengths and widths available according to customer requirements (from 12 mm width, tol: +/-0.5 cm)
- In roll form, dimensions according to customer specification (drop & place) with or without partial adhesive liner both variants available on reel, also 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 A4/30cm x 24inch or 39 cm x 60 cm (tol: +/-0.5 cm)
- In blanks and shapes according to customer specification sheet/roll/loose or on carrier (Kisscut)
- Depending on customer requirements
  - \* The unilaterally applied adhesive liner layer (acrylic adhesive layer) increases the Rth value by up to 0.05 ° K/W

ICT4TIM Partners



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