FACT SHEET

ICT-XP45

The ICT-Xp45-W Series (10 | 20 | 30) is the latest development of a substrate carrier-free, electrically insulating, high-performance phase change material enriched with a high heat-conducting filler with a defined phase change temperature of 45 °C.

PHASE CHANGE MATERIALS (ELECTRICALLY CONDUCTIVE)

DESCRIPTION

The ICT-Xp45-W-series is cost-efficient, electrically non-insulating and enriched with a high-heat conductive filler, solvent-and silicone-free high-performance phase change material.

The ICT-Xp45-W-series can also be manufactured in a number of different material thicknesses in successive and technically mature production steps.

The product group comprises three thickness units in total:

1. **ICT-Xp45-W-10 [0.10 mm]**
2. **ICT-Xp45-W-20 [0.20 mm]**
3. **ICT-Xp45-W-30 [0.30 mm]**

All three products differ only by layer thickness.

An efficient thermal connection to the contact surfaces is only possible, however, by attaching the absolutely uniform coating of the ICT-CONSIDERATIONS45 phase change material. Through the development of this new and 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. With the result that air is efficiently expelled to the outside and any surface irregularities or flatness conditions-which are present across the interface-can be minimised.

With this new and innovative 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 an optimal thermal be carried out in the heatsink or the housing tray.

TYPICAL PROPERTIES

Operating temperature	**from -40 to 140 °C**
Thermally conductive	**Yes**
Thermal conductivity	**3.5 W/m*K**
Thermal resistance (TO-3P / ca. 360mm²)	**1.67 °C/W**
Thermal resistance (inch² / 645,16mm²)	**0.01 0.02 0.02**
Electrically conductive	**Yes**
Color	**Gray**
Material	**Pure film | Compound Aufbau**

FEATURES

- Silicone free
- Guaranteed Layer Thickness
- Low-cost "drop-in-place" solution possible
- For customer-specific requirements
- Low Thermal Impedance
- Solution for many types of surfaces
- Ideal replacement for thermal paste and other Dispensiver products, which must be applied mechanically in screen printing or print processes
- Only low tightening torque required
- Material can be exchanged without surface treatment
- Easy cleaning by Isopropyl alcohol
- Fast, clean and process-safe pre-assembly

DELIVERY FORMS / APPLICATIONS

- In roll form, dimensions according to customer specification (drop & place)
- In blanks and shapes according to customer specification
- Standard sheet sizes| 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

ICT4TIM Partners

ICT SUEDWERK GmbH
INSPIRED CUSTOMIZED TIM SOLUTIONS
Bajuwarenring 12a • 82041 Oberhaching
Tel: +49 (0)892123102-0 • Fax: +49 (0)892123102-10
Info@ict-suedwerk.de • www.ict-suedwerk.de

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