

# Transtherm™ Phase Change Materials

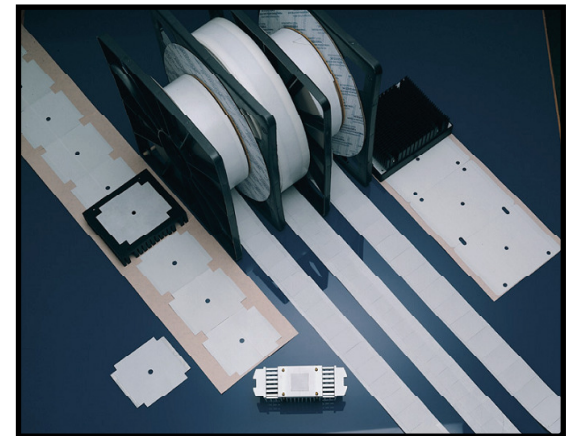
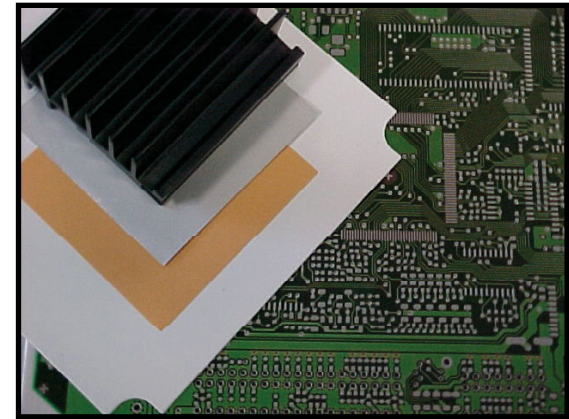
**Transtherm™ Phase Change Materials** offer very low thermal impedance for thin bondline applications. Self tacky version offers improved product handling and no pump out issue.

## Features

- Phase change temperature: 60°C
- Low thermal resistance possible as grease
- Controlled thixotropicity eliminates migration
- Easy to handle, easy to assemble
- Chemically resistant
- Supported (Al, Polyimide carrier) and unsupported versions available in various thicknesses
- Tacky and tack-free versions available

## Applications

- CPU to heat sink
- Power Modules to heat sink
- IGBT's
- DC to DC Converters
- RF Components
- MOSFET's
- Bridge Rectifiers
- Power Conversion



### Transtherm Phase Change Materials

Physical Properties	PC 03 - AL	PC03-AL-2021	PC03-MT-100	PC03-MT1-2021	Test Method
Color	white	white	yellow	yellow	Visual
Thermal Impedance (°C.In <sup>2</sup> /Watt @10psi)	0,12	0,14	0,13	0,2	ASTM D 5470 modified
Phase Change Temperature (°C)	60	60	60	60	
Min. Continuous Use Temperature (°C)	-40	-40	-40	-40	
Max. Continuous Use Temperature (°C)	150	150	150	150	MIL-I-49456A
Thermal Conductivity (W/mK) @10psi	4,5	3,9	1,6	1,2	ASTM D5470 modified
Thickness ( mm)	0,13	0,13	0,1	0,1	ASTM D374
Thickness Tolerance (mm)	+ 0,028 / - 0,022	+ 0,028 / - 0,022	+/- 0,02	+/- 0,02	
Thickness (mil)	5,1	5,1	4	3,6-4,4	
Volume Resistivity (Ohm.cm)	N/A	N/A	1,00E+12	1,00E+12	ASTM D257
Dielectric Strength (Volts, minimum)	N/A	N/A	5000	5000	ASTM D149
Contact Pressure (psi)	<1	<1	<10 to >437	<10 to >473	
(N/mm <sup>2</sup> )	<0,001	<0,001	<0,001	<0,001	
Specific Gravity (g/cm <sup>3</sup> )	2,1	2,1	1,8	1,8	
Hardness (Shore A )	N/A	N/A	90	90	ASTM 2240
Tensile Strength (N/mm <sup>2</sup> )	N/A	N/A	14	14	ASTM D828
Elongation ( % )	N/A	N/A	30	30	ASTM D828
Peel from liner (g/cm <sup>2</sup> )	0,15	0,15	N/A	0,15	ASTM D 1000
(N/m)	30	30	N/A	N/A	
Flame Resistance ( UL File E316839)			UL 94 VO	UL 94 V1	UL 94
Thermally Conductive Adhesive	N/A	0,05 mm	N/A	0,05 mm	
Substrate / Reinforce Layer	Aluminium	Aluminium	Polyimide	Polyimide	

**Attention:**

All data and values of this technical information have been ascertained with care. Taking into consideration the multiplicity of both usage conditions and the process and application technologies, the data and information supplied represent lead values of a non-binding nature so that no warranty claims can be derived there from. Above all, in addition to our general sales conditions, only written agreements are regarded as being binding.