

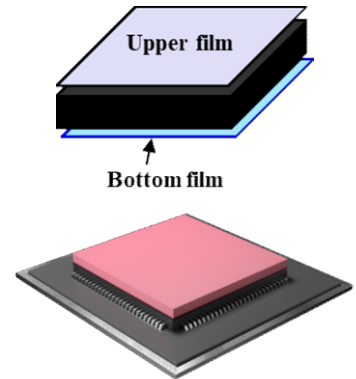
3CTY Thermal Solution

TYSS SERIES

TYSS series can solve the problem of temperature. It is a good vertical thermal conduction materials between the heat source (CPU or electronic chipset) and heat sink.

Features

- Easy to use, easy to remove
- Excellent insulation performance
- Excellent flexibility : can be perfectly embed in uneven interface
- Excellent flame retardant performance : meet UL94 V-0 level
- High applicability : stable performance under -40 ~ 200 °C
- Have a variety of product lines (Thermal conductivity, Hardness, thickness)
- Satisfies RoHS and REACH standards

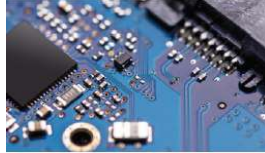


Recommended applications

- Electronic heater elements, such as electron device, Inspection equipment
- Electrical Vehicle's heat source, such as on-board cameras, ECU, battery pack, Automotive lighting (LED)
- TIM (Thermal interface material) : to link two joint faces, the heat flow go through equally



Notebook MPU



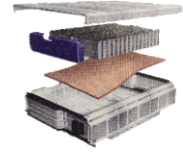
electronic device IC chip



Battery Pack



LED Light



Power Control Unit

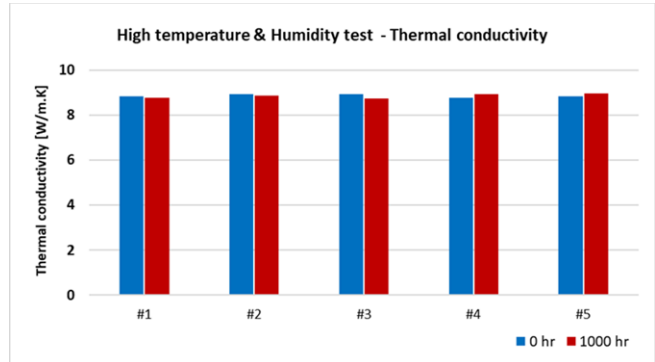
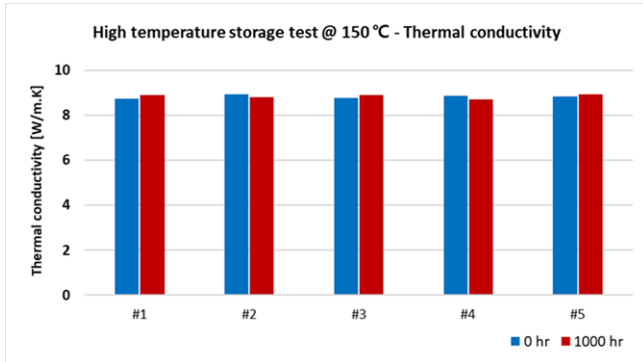
Standard products

TYSS series	Test method	TYSS-15	TYSS-30	TYSS-50	TYSS-90	TYSS-120
Appearance / Color	-	Green	Sky blue	Gray	Gray	Gray
Thickness [mm]	ASTM D374	0.5 ~ 5.0	0.5 ~ 5.0	0.5 ~ 5.0	1.0 ~ 3.0	1.0 ~ 3.0
Density [g/cm ³]	ASTM D792	2.7	2.9	3.3	3.6	3.3
Thermal conductivity [W/m·K]	ASTM D5470	1.5	3.0	5.0	9.0	12.0
Hardness [Shore 00]	ASTM D2240	55	55	55	55	60
Breakdown Voltage [kV/mm]	ASTM D149	> 10	> 10	5	5	0.2
Volume Resistivity [Ω·cm]	ASTM D257	10 ¹²	10 ¹²	10 ¹⁰	10 ¹⁰	10 ¹⁰
Flammability	UL94	V-0	V-0	V-0	V-0	V-0

3CTY Thermal Solution

Performance Data

Reliability test (150 °C / 85 °C, 85 RH%)



Out-gassing test

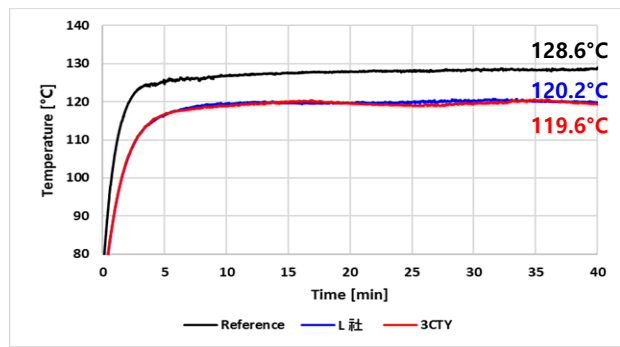
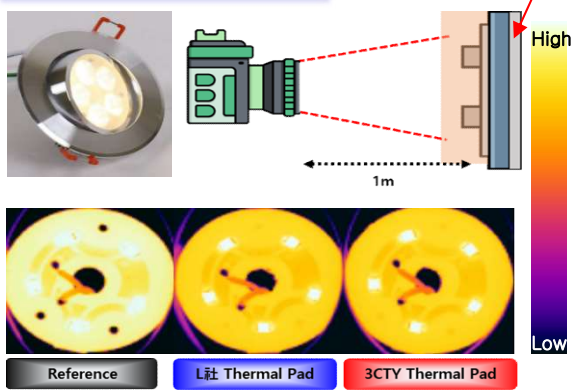
	TML (%)*	CVCM (%)**	Test method
TYSS-30-55 series	0.39	0.018	ASTM E595

* TML (Total Mass Loss : 총 질량 감소율)
 ** CVCM (Collected Volatile Condensable Materials : 휘발성물질의 응축포집율)

Thermal Reduction Test

- 3CTY and L社 product were attach to the LED Light, and the thermal change of the LED light was measured using Infrared Thermal Camera.
- Tested using products of the same specification

LED Light thermal test



LED Light TIM thermal test

