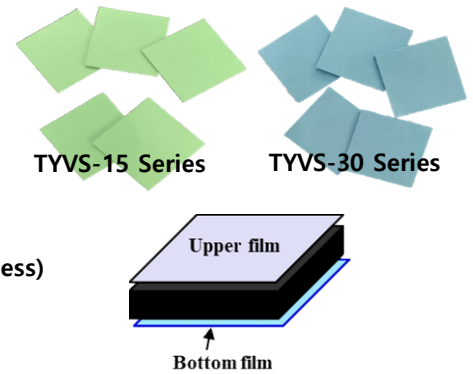


## TYVS SERIES

TYVS 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

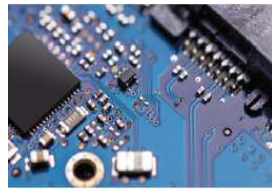


### Recommended applications

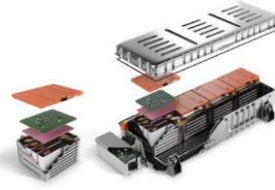
- Electronic heater elements, such as electron device, Inspection equipment
- Electrical Vehicle's heat source, such as on-board cameras, ECU, battery pack, Automotive lighting (LED)
- TIM (Thermal interface material) : to link two joint faces, the heat flow go through equally



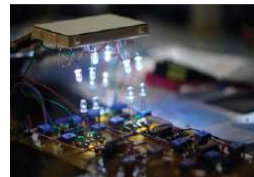
Notebook MPU



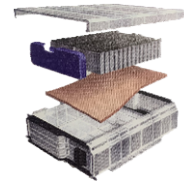
electronic device IC chip



Battery Pack



LED Light



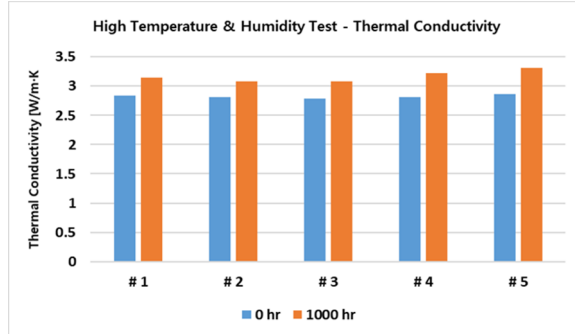
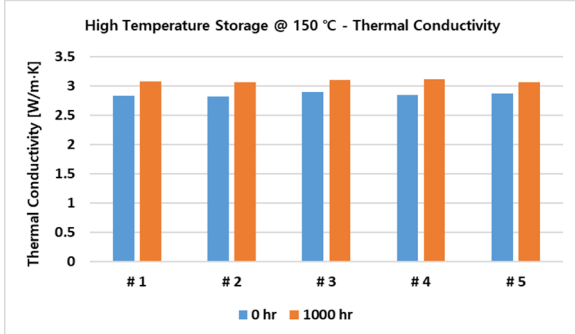
Power Control Unit

### Standard products

TYVS series	Test method	TYVS-15	TYVS-30
Appearance / Color	-	Green	Sky blue
Thickness [mm]	ASTM D374	0.5 ~ 5	0.5 ~ 5
Density [g/cm <sup>3</sup> ]	ASTM D792	2.7	2.9
Thermal conductivity [W/m·K]	ASTM D5470	1.5	3.0
Hardness [Shore 00]	ASTM D2240	55	55
Breakdown strength [kV/mm]	ASTM D149	> 10	> 10
Volume Resistivity [Ω·cm]	ASTM D257	10 <sup>12</sup>	10 <sup>12</sup>
Flammability	UL94	V-0	V-0
Content of Low Molecular Siloxane (ΣD3-D9) [ppm]	-	< 70	< 70

## Performance Data

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



### Out-gassing test

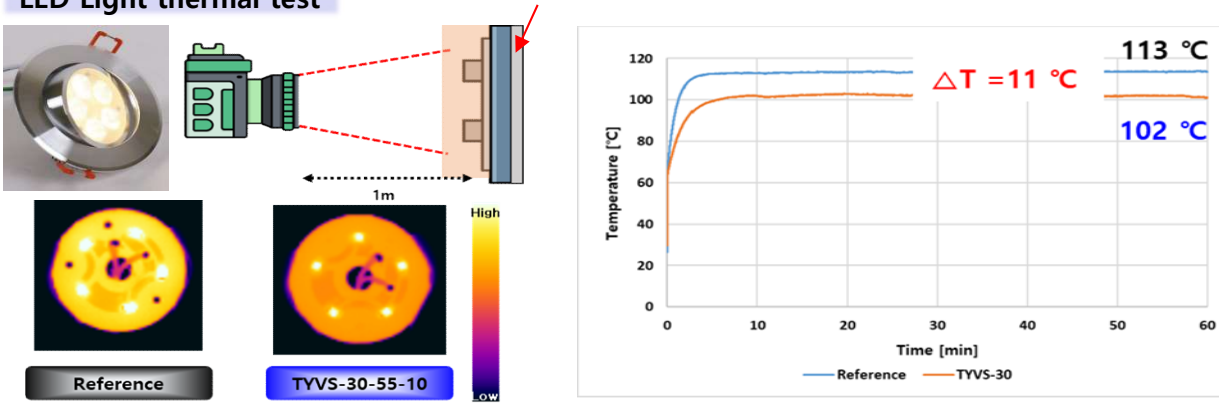
	CVCM (%)*	Test method
TYSS-30-55 series	0.0056	ASTM E595

\*\* CVCM  
(Collected Volatile Condensable Materials : 휘발성물질의 응축포집율)

### Thermal Reduction Test

- 3CTY and L<sub>11</sub> 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

