

# Die Attach for LED



TECHNICAL DATA  
No. KS2547 2012/05

## DA8472-1

### \* Characteristics

- High thermal conductivity
- Hybrid silicone resin system
- Excellent heat-resistance and light-resistance
- High adhesion strength
- White color type

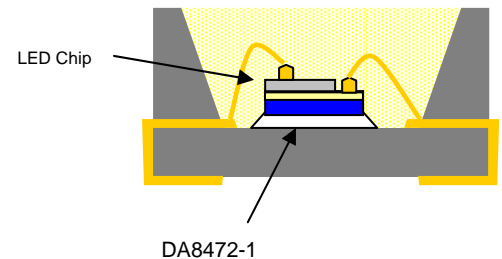
### \* Application Method

Dispensing

### \* Recommended Curing Condition

160°C x 60 min.

### \* Reference Data



	Item	DA8472-1	Unit	Remark
1	Color	White		
2	Viscosity	15	Pa.s	TOKIMEC TVE-22 type, 25°C, 5rpm
3	T.I	5.0		0.5rpm/ 5rpm
4	Gel Time	47	sec	@150 °C
5	Adhesion Strength at RT	22	N/mm <sup>2</sup>	1 mm <sup>2</sup> Si Chip/Ag-plated Cu Frame
	at 260°C	7.0	N/mm <sup>2</sup>	1 mm <sup>2</sup> Si Chip/Ag-plated Cu Frame
6	Volume Resistivity Initial	1.8 × 10 <sup>14</sup>	ohm. cm	500V, 1min./20 °C
	After PCT	4.8 × 10 <sup>13</sup>	ohm. cm	After PCT (121°C, 2atm) x 20h
7	Tg	90	°C	DMA method, TMA method
8	Elastic Modulus	7.5	GPa	DMA method (@25°C)
9	Shore D	20		Shore hardness tester
10	Coefficient of Thermal Expansion	40 / 130	ppm/°C	TMA method
11	Impurities Concentration Cl <sup>-</sup>	< 5	ppm	Extract after PCT (121°C, 2atm) x 20h
	Na	< 5	ppm	Extract after PCT (121°C, 2atm) x 20h
	K	< 5	ppm	Extract after PCT (121°C, 2atm) x 20h
14	Thermal Conductivity	2.4	W/mK	3layers
13	Pot Life	24	h	

\* These data are only for reference.

### \* Note

Storage: -40°C or below

Before application, please make sure that paste is at room temperature.

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## Change of Reflectance

### \* Heat-resistance and Light-resistance

Heat-resistance and light-resistance are confirmed by checking the change of film color under light irradiation and high temperature.

#### -Test method-

1. Die bonding paste was applied on the glass plate and cured.
2. Reflectance was measured by IR at the surface.
3. Leave the test piece under the following conditions.
  - (1) Under HID blue light (400w) irradiation. The wavelength is 450nm.
  - (2) In a drier of 150°C

4. After a pre-determined time, reflectance was measured in the same way as No.2 above.

#### -Test condition-

HID light

\* The distance between a test piece and light: About 50 mm

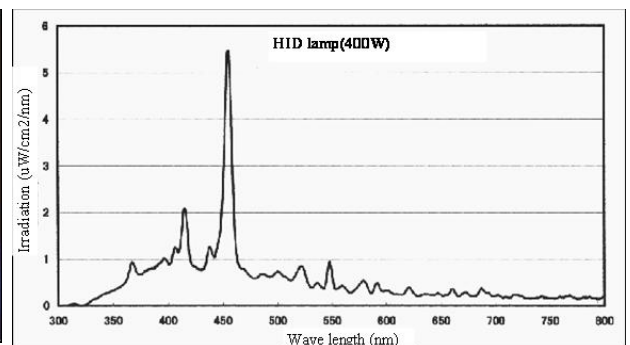
\* Light flux: 8,000lm,

Illuminance: About 20,000 Lx

\* Temperature of test piece while irradiating: About 120°C

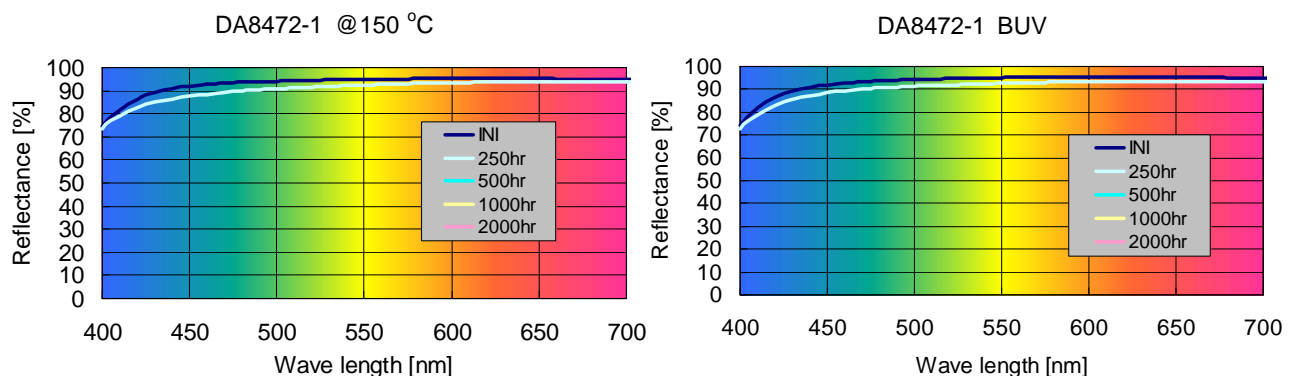
\* Wavelength:

→ See the right figure



#### -Results-

### Ongoing measurement



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