



## TECHNICAL DATA SHEET

**CAS-TD50A/B is a two-part, phenylsiloxane-based silicone material designed for high-performance LED and optical applications. Offers excellent thermal stability, moisture resistance, and optical clarity.**

### Characteristic

1. Low viscosity for easy dispensing and molding. Easy-pigmentable with LSR colour pastes and phosphor.
2. High optical clarity, 95%-97% transmittance rate.
3. Superior adhesion to various substrates (e.g., aluminum, glass).
4. Excellent thermal stability up to 150°C.

### Application

1. LED encapsulation and protection
2. Discrete lenses for LEDs and optical components.
3. High-purity electronic and optical applications.

### Basic performance

The following values are not used as specifications, but only as reference indicators.

Item		Method	Value
Appearance		Eyeballing	A: Transparent
			B: Yellowish Liquid
A/B ratio		--	1:10
Viscosity (Pa·s)	A	GB/T 10247-2008	6200
	B	GB/T 10247-2008	7300
	After Mixed	GB/T 10247-2008	7200
Hardness (Shore D)		GB/T 531.1-2008	51
Transmittance 450nm, 1mm thick, %		/	95%
Refractive index		/	1.54

### Curing

80°C/1H+150°C/3H.

For batch operation, the long baking time is recommended to be adjusted to  $\geq 4$ H.



## Operation

### 1. Mixing ratio:

CAS-TD50/A:CAS-TD50/B=1:10

2. Degassing: Mix A, B in proportion evenly until there are no lumps, and the thickness is uniform, then place under vacuum for degassing until no bubbles emerge (no heating is required during the vacuum degassing process).

3. Pouring: After degassing, pour the silicone into the injection springe. In order to further degassing, the syringe filled with silicone can be placed in a vacuum for degassing again.

4. Moisture removing: Before silicone filling, the bracket or base should be preheated to more than 150°C/0.5H to remove moisture in the bracket or base to avoid bubbles during curing.

Reminder: Since the viscosity of CAS-TD50A/B is closely related to temperature, the recommended operating temperature is  $25 \pm 2^{\circ}\text{C}$  to avoid bubble removal problem and dispensing difficulties.

## Product safety message

Please contact the sales representative of Newsil to obtain the relevant material safety data sheet, and please read the material safety data and product identification label carefully before using the product to prevent harm to yourself and the environment.

## Package

1 kg / barrel, standard plastic barrel.

5 kg / barrel, the standard plastic barrel.

## Storage and shelflife

Storage temperature  $-5 \sim 25^{\circ}\text{C}$ , humidity  $\leq 65\%$

Expiration: 6 months

## Use restrictions

This product has not been tested and can not be used for medical or medicinal purposes.

## Limited warranty message

The information provided in this document is honest and accurate. However, since the conditions and methods of actual use of the product are beyond our control, the tests conducted by the customer for end use are not covered by this information.