

OP 966 HB LED Silicone

Description

OP 966 is a clear colorless transparent, non-priming silicone system suitable for molding process for LED encapsulation. It is recommended especially for encapsulation of high power blue LED chips where UV resistance and high temperature resistance are required. This silicone system has high hardness and yet provides low stress for excellent performances in temperature cycling, high temperature storage, high humidity storage, minimal light output degradation and outdoor weathering. It is enhanced for minimal light output degradation.

Applications

1. Encapsulation of high power, white-light LED devices.

Guidelines for Use

1. Weigh Part A resin into the mix container first followed by the Part B crosslinker. Stir with an electric mixer until the silicone is homogeneously mixed and no lines of different refractive indices are observed.
2. Remove the air bubbles in the silicone mix by vacuum degas at 0.001 mbar (0.1 Pa) for 20 minutes.
3. Dispense or filling the mixed silicone into the mould.
4. Pre-cure the silicone at 150°C for 1 minutes and remove from the mould
5. Post-cure it at 150°C for 2 hours.

Properties

Property	Test method	Unit	Typical value		
			Part A Resin	Part B Crosslinker	Mixed
Chemical type	-	-	Polysiloxane	Polysiloxane	Polysiloxane
Appearance	Pen 10	-	Colorless to slight translucent liquid	Colorless transparent liquid	Colorless transparent liquid
Mix ratio, by weight	-	-	1.00 ± 0.01	1.00 ± 0.01	-
Shelf life, 25 °C	-	Month	12	12	-
Pot life, 25 °C	Pen 26	Hour	-	-	4
Viscosity, 25°C	Pen 44	cP	12, 950	5,000	8,300
Refractive index, 25 °C	Pen 28	-	1.4095	1.4080	1.4090
Hardness, cured at 150°C for 2 hrs	Pen 29	Shore A	-	-	72
Light transmission at 450nm	Pen 40	%	-	-	>95

6. The adhesion strength of the silicone to substrate can be improved by apply CT 986, Silicone Primer to substrate.
7. Avoid contamination with heavy metals, amines, sulfur compounds and moisture. The silicone may not cure properly when contaminated.
8. Wear rubber gloves when handling silicone resins and crosslinkers.
9. Wipe off any uncured silicone spillage with tissue or dry cloth with iso-propanol (IPA).
10. Flush with dry nitrogen and close tightly for all remaining silicone resin in bottle.

Storage

Store both Part A resin and Part B crosslinker in a cool, dark place to prolong shelf life.

Packaging

- 500g bottle
- 1 kg bottle
- 5kg bottle

Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

Recommended Cure

Cure schedule	Temp.	Cure time
Pre-cure	150°C	1 min.
Post-cure	150°C	2 hours

Contact Information

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