

# OP 954-10

## Two Part High RI Silicone

### Description

OP 954-10 is a clear, two part heat curable high refractive index silicone system. It is suitable for encapsulation of high performance optoelectronic devices where high refractive index and high temperature resistance are required, for example high brightness white LED lamps. It is designed for excellent performances in temperature cycling, high temperature storage, minimal light output degradation, and outdoor weathering. It is enhanced for good resistance to yellowing from oxidation, high temperature degradation and UV radiation. It is also improved for flexibility and low encapsulation stresses.

### Applications

1. Used for molding, potting or encapsulation for LED device or other electronic component.

### Guidelines for Use

1. Add the part A resin into part B crosslinker by weight ratio 1:1. Stir with an electric mixer until the silicone is homogeneous.
2. Remove the air bubbles in the silicone mix by vacuum degas at 0.001mbar (0.1 Pa) for 30 minutes.
3. Dispense the silicone and pre-cure it at 120°C for 300s followed by post-cure at 150°C for 4 hours.

### Properties

Property	Test method	Unit	Typical Value		
			Part A Resin	Part B Crosslinker	Mixed
Chemical type	-	-	Polysiloxane	Polysiloxane	Polysiloxane
Appearance	Pen 10	-	Slightly yellow transparent liquid	Colorless transparent liquid	Colorless transparent liquid
Mix ratio, by weight	-	-	1.00 ± 0.01	1.00 ± 0.01	-
Refractive index, 25°C	Pen 28	-	1.53	1.53	1.53
Shelf life, 25°C	-	Month	12	12	-
Pot life, 25°C	Pen 26	Hour	-	-	4
Elongation	Pen 41	%	-	-	18.5
Viscosity, CAP 2000+ Viscometer, 25°C	Pen 44	cP	16050	7750	9000
Hardness	Pen 29	Shore A	-	-	75
Light transmission at 450nm	Pen 40	%	-	-	> 99

4. Avoid contamination with solder flux, heavy metals, amines, sulphur compounds and moisture. The silicone may not cure properly when contaminated.
5. Flush with dry nitrogen and stopper tightly for all remaining silicone resin in bottle.
6. Wear rubber gloves when handling silicone resins.

### Recommended Cure

Schedule	Temp.	Cure Time
Pre cure	120 °C	300 s
Post cure	150 °C	3 hours

### Storage

Store both Part A resin and Part B crosslinker in a cool, and dry place to prolong shelf life. Keep away from sunlight and bright room lights.

### Packaging

- 150g glass bottle
- 1 kg plastic bottle
- 5 kg plastic bottle

### Environment, Health & Safety

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

### Contact Information

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