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OP 959-7
Two Parts High RI Silicone

Description

OP 959-7 is a clear, two parts 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.

Properties

Property	Test method	Unit	Typical Value		
			Part A Resin	Part B Crosslinker	Mixed
Chemical type	-	-	Polysiloxane	Polysiloxane	Polysiloxane
Appearance	Pen 10	-	Clear colorless liquid	Clear colorless liquid	Clear colorless liquid
Mix ratio, by weight	-	-	1.00 ± 0.01	1.00 ± 0.01	-
Refractive index, 25°C	Pen 28	-	1.54	1.53	1.54
Shelf life, 25°C	-	Month	12	12	-
Viscosity, 25°C	Pen 44	cP	4600	4000	4375
Transmittance		%			92
Pot life, 25°C	Pen 26	Hour	-	-	4
Hardness	Pen 29	Shore A	-	-	67
Light transmission at 450nm	Pen 40	%	-	-	99

Applications

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

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 cure it at 170°C for 2 hours.
4. Avoid contamination with solder flux, heavy metals, amines, sulfur 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

Cure temp.		Duration
cure	170°C	2 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

- 500g bottle
- 1 kg bottle
- 5 kg 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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