TOPSIL SILICONE

TECHNICAL DATA SHEET
TP-8850

High-Temperature Addition-Cure Silicone Rubber

PRODUCT DESCRIPTION

TP-8850 is a two-component addition-cure potting silicone rubber consisting of liquid Part A and Part B. When Parts A and B are mixed at a 1:1 ratio by weight, the material cures through an addition reaction to form a high-performance elastomer.

KEY FEATURES

- No shrinkage and no heat release during cure
- Wide temperature resistance range: -50°C to 300°C
- Good electrical insulation
- Waterproof, moisture-resistant and non-corrosive
- Meets environmental protection requirements

TYPICAL APPLICATIONS

Mainly used for high-temperature products, purification equipment, power supplies and similar applications requiring electrical insulation, thermal conduction, waterproofing, moisture resistance, sealing and protection.

CURE INHIBITION / PRECAUTIONS

Certain materials, chemicals, curing agents and plasticizers may inhibit the cure of the silicone rubber. Pay particular attention to the following:

- Organotin compounds and organotin-containing silicone rubbers
- Sulfur, polysulfide compounds or sulfur-containing materials
- Amines, polyurethane rubber or ammonia-containing materials
- Phosphite or phosphite-containing materials
- Acidic materials (organic acids)
- Flux residues

If the presence of any of the above substances is suspected, a sample test is recommended before mass production.

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TYPICAL PRODUCT DATA

Property	Unit	Reference Standard	Typical / Specified Value
Appearance	-	-	Part A: Red Part B: White
Viscosity	cP	GB/T2794-1995	Part A: 2500 ± 500 Part B: 2500 ± 500
Density	g/cm³	GB/T2794-1995	Part A: 1.6 ± 0.1 Part B: 1.6 ± 0.1
Mixing ratio (A:B)	-	-	1:1 by weight
Mixed viscosity	cP	GB/T2794-1995	2500 ± 500
Working time	min	-	30-40
Initial cure time	h	-	1-2
Hardness	Shore A	GB/T531-1999	50 ± 5
Breakdown voltage	kV/mm	GB/T1408.1-1999	≥ 20
Volume resistivity	Ω·cm	GB/T1692-92	≥ 1.0×10^{14}
Dielectric constant	60 Hz	GB/T1694-1981	3.0
Thermal conductivity	W/(m·K)	-	0.65

Test conditions: 25°C, RH 65%

MIXING & APPLICATION

Weighing: Accurately weigh Parts A and B and mix thoroughly at a 1:1 ratio by weight.

Mixing: Mix manually or by machine until the material is completely homogeneous and uniform in color.

Degassing: Place the mixed material in a vacuum chamber and degas to remove air entrapped during mixing.

Potting: Pour the degassed material into the component or assembly to complete the potting operation.

Curing: Allow the potted assembly to cure at room temperature. The viscosity of the mixed material will gradually increase with time, so complete potting within the appropriate working time.

PACKAGING

50 kg/set: Part A 25 kg + Part B 25 kg.

200kg/set: Part A 100 kg + Part B 100 kg.

STORAGE & SHELF LIFE

The product is described as non-toxic and non-hazardous.

Protect from rain and direct sunlight. Store in a cool, dry place. Shelf life: 18 months.

IMPORTANT NOTICE

The data in this document were measured under specific test conditions and may vary slightly under different use environments. Users should conduct a preliminary test before use to confirm suitability for the intended application. Please contact us if any questions arise during use.