

Description

N-Sil 8580 is a one-part semi-flow silicone. It meets the requirements of UL94_V0 flammability rating. Typical applications include sealing and protection of components on PCBs and reinforcement of FPCs.

Features

- Recommended substrates: PC, PCB, aluminum, glass
- Fast curing
- Excellent electrical properties when subjected to water immersion
- Soft and flexible
- Excellent resistance to moisture and various solvents
- UL-94_V0

Uncured Properties

Chemical Type	Silicone
Appearance	White/Black Paste
Specific Gravity [g/cm³]	~1.48
Shelf Life @ 10-28°C [months]	6

Curing Conditions

Tack Free [mins] @ 25°C/50%RH	3-15
Curing Speed [mm/24hrs] @ 25°C/50%RH	3

Cured Properties

Hardness [Shore A] ASTM D2240	55
Elongation at Break [%] ASTM D638	100
Tensile Strength [MPa] ASTM D638	2.0

Lap Shear Strength [MPa] PCB/PCB ASTM D1002	1.8
Thermal Conductivity [W/m·k] ASTM D2214	0.5
Volume Resistivity [ohm-cm] ASTM D257	>1.0x10 ¹⁵
Dielectric Strength [kV/mm] ASTM D14	20
Dielectric Constant @ 60Hz ASTM D150	2.9

Directions for Use

1. Surface Treatment

Surfaces to be bonded should be free of dust, oil, grease or any other contaminants in order to achieve a reproducible bond. For slightly contaminated surfaces, it is sufficient to wipe with isopropanol or ethanol. Substrates with a low surface energy (e.g. polyethylene, polypropylene, Teflon) need to be pre-treated physically (e.g. atmospheric plasma or corona) in order to achieve sufficient adhesion.

2. Application

Products are supplied ready for use. Depending on packaging, it can be dosed manually, semi-automatically or fully-automatically with a dosage apparatus.

This product is cured by reaction with moisture. The tack free and curing time are dependent on humidity and temperature.

3. Suggested working temperature range is -40 to 180°C.

Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature between **10°C to 28°C**.

TO PREVENT CONTAMINATION OF UNUSED PRODUCT, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER.

Materials Handling

This product is slight irritant to eye and skin. In case of eye contact, flush with water for fifteen minutes. Wash with plenty of soap and water after skin contact. If feel uncomfortable, discontinue use and consult a physician.

Refer to the Material Safety Data Sheet (MSDS) for this product.

Disclaimer

The information provided here including the recommendations for use and application of the product is based on internal laboratory test conditions and should only be used as a reference. CollTech does not assume responsibility for the test or performance results obtained by the user. It is the responsibility of the user to perform their own evaluations to confirm whether this product is suitable for their application.