BUILDING TRUST

PRODUCT DATA SHEET

# Sikasil® AS-787 SL

## SELF-LEVELLING POTTING COMPOUND FOR ELECTRICAL COMPONENTS

### TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

| Properties | | Sikasil® AS-787 SL (A) | Sikasil® AS-787 SL (B) |
|---|---|---|---|
| **Chemical base** | | 2-component silicone | |
| **Color (CQP001-1)** | mixed | White | Translucent |
| | | White | |
| **Cure mechanism** | | Polycondensation | |
| **Cure type** | | Neutral, alkoxy | |
| **Density (uncured)** | | 1.3 kg/l | 1.0 kg/l |
| | mixed | 1.2 kg/l | |
| **Mixing ratio** | A: B by volume | 10:1 | |
| | A: B by weight | 13:1 | |
| **Viscosity (CQP029-6)** | at 0.89 $s^{-1}$ | 20 Pa·s | 1 Pa·s |
| **Consistency** | | Liquid | |
| **Application temperature** | ambient | 5 – 40 °C | |
| **Snap time (CQP554-1)** | | 12 minutes [A] | |
| **Non-flow time (CQP070-2)** | | 19 minutes [A] | |
| **Shore A hardness (CQP023-1 / ISO 7619-1)** | | 30 | |
| **Tensile strength (CQP036-1 / ISO 527)** | | 1.0 MPa | |
| **Elongation at break (CQP036-1 / ISO 527)** | | 130 % | |
| **Volume restivity (DIN IEC 60093)** | | $10^{14}$ Ω·cm | |
| **Electrical strength (DIN IEC 60243-1)** | | 20 kV/mm | |
| **Relative permittivity (DIN VDE 0303 Part 4:1969-12)** | | 3.5 F/m | |
| **Comparative tracking index CTI (DIN EN 60112)** | | 600 V | |
| **Thermal conductivity (DIN 52612)** | | 0.2 W/m·K | |
| **Thermal resistance (CQP 513-1)** | 4 hours | 200 °C | |
| **Service temperature (CQP513-1)** | | -40 – 150 °C | |
| **Shelf life (CQP016-1)** | | 12 months [B] | |

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] storage below 25 °C

### DESCRIPTION

Sikasil® AS-787 SL is a 2-component, non-corrosive, fast-curing silicone potting agent, for encapsulation of electronic parts.

### PRODUCT BENEFITS

- Short non-flow time with excellent flow properties
- Good heat dissipation
- Superb dielectric properties
- Excellent adhesion to most photovoltaic substrates
- Outstanding performance under harsh environment conditions
- Low volatility
- UL® certified: UL94 V-1, HWI 3, HAI 0, RTI ≥105°C

### AREAS OF APPLICATION

The self-leveling and fast curing potting agent Sikasil® AS-787 SL can be used for encapsulation and protection of electronic components which may have to withstand harsh environmental conditions. Originally designed for junction box potting in the photovoltaic industry.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

## CURE MECHANISM

Sikasil® AS-787 SL starts to cure immediately after mixing the 2-components.
The speed of the reaction depends mainly on the temperature, i.e. the higher the temperature the faster the curing process. Heating above 50 °C could lead to bubble formation and is therefore not allowed.
The product may also be used in confined spaces but the outgassing by the curing process needs to be considered.
The mixer open time, i. e. the time the material can remain in the mixer without flushing or extrusion of product, is significantly shorter than the snap time indicated above.

## METHOD OF APPLICATION

### Surface preparation

Surfaces must be clean, dry and free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond.

### Application

Before processing Sikasil® AS-787 SL both components have to be mixed homogeneously and air-bubble-free in the correct ratio as indicated with an accuracy of ± 10 %. Most commercially available metering and mixing equipment are suitable. For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.
Consider that the B-component is moisture-sensitive and must therefore only be exposed briefly to air.

### Removal

Uncured Sikasil® AS-787 SL can be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.
Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

### Overpainting

Sikasil® AS-787 SL cannot be overpainted.

### Application limits

To exclude materials influencing Sikasil® AS-787 SL, all materials such as gaskets, setting blocks, sealants, etc., in direct and indirect contact have to be approved by Sika in advance.
Where two or more different reactive sealants are used, allow the first to cure completely before applying the next.
Sikasil® AS-787 SL may only be used for serial application after a detailed examination and written approval of the corresponding project details by Sika Industry.

## FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.
Copies of the following publications are available on request:

- Safety Data Sheets
- General Guideline
  Sikasil® AS-Product Range

## PACKAGING INFORMATION

Sikasil® AS-787 SL (A)

| | |
|---|---|
| Pail | 20 kg |

Sikasil® AS-787 SL (B)

| | |
|---|---|
| Pail | 18 kg |

## BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

## DISCLAIMER

The information, and, in particular, the recommendations relating to the application and enduse of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



**Sika Italia S.p.A.**
**Via Luigi Einaudi 6**
20068 Peschiera Borromeo (MI)
industry@it.sika.com
Tel. +39 02 54778111
Fax +39 02 54778409
www.sika.it