

Sikasil® AS-787 SL

Self-Levelling Potting Compound for Electrical Components

Technical Data

		Component A	Component B
Chemical Base		2C Silicone	
Colour (CQP ¹ 001-1)		White, Black	Translucent
Colour mixed		White, Black	
Cure Mechanism		Polycondensation	
Cure Type		Alkoxy	
Density (CQP 006-04)		1.26 kg/L approx	0.97 kg/L approx
Mixed		1.22 kg/L approx	
Mixing Ratio		10:1	
A:B by volume		13:1	
A:B by weight			
Viscosity at (CQP 029-6)		0.89 s ⁻¹	20 Pa's approx
Viscosity - Mixed		2 Pa's approx	
Consistency		22 Pa's approx	
		Liquid	
Application Temperature		5°C to 40°C	
Snap Time ² (CQP 554-1)		8 min approx	
Non-Flow Time ² (CQP 70-10)		13 min approx	
Tack-Free Time ² (CQP 019-1)		35 min approx	
Shore A Hardness (CQP 023-1/ISO 868)		30 approx	
Tensile Strength (CQP 036-1/ISO 37)		1.0 N/mm ² approx	
Elongation at Break (CQP 036-1/ISO 37)		130% approx	
Volume Resistivity (DIN IEC 60093)		10 ¹⁴ Ω · cm approx	
Electrical Strength (DIN IEC 60243-1)		20 kV/mm approx	
Relative Permittivity (DIN VDE 0303 Part 4:1969-12)		3.5 F/m approx	
Comparative Tracking Index CTI (DIN EN 60112)		600 V	
Thermal Conductivity (DIN 52612)		0.2 W/m · K approx	
Thermal Resistance (CQP 513-1)		200°C approx	
Short-Term		4 hours	
Service Temperature		-40 to 150°C approx	
Shelf Life (Storage below 25°C) (CQP 016-1)		12 months	
¹ CQP = Corporate Quality Procedure ² 23°C and 50% Relative Humidity			

Description

Sikasil® AS-787 SL is a two-part, non-corrosive, fast-curing, low-viscosity silicone potting agent originally designed for the photovoltaic industry. Sikasil® AS-787 SL is manufactured in accordance with ISO 9001 Quality Assurance System.

Product Benefits

- Short non-flow time;
- Excellent flow properties;
- Air-free potting (for complex cavities);
- Excellent adhesion to most photovoltaic substrates;
- Good heat dissipation;
- Superb dielectric properties;
- Outstanding performance under harsh environment conditions;
- Low volatility;
- UL®-certified: UL94 V-0, HWI 3, HAI 0, RTI ≥ 105°C (221°F).



Areas of Application	Sikasil® AS-787 SL is especially designed for potting of junction boxes used in photovoltaic systems. Furthermore, it is suitable for encapsulation, protection and bonding of electronic components. This product is suitable for professional experienced users only. Tests with actual substrates and conditions must be performed to ensure adhesion and material compatibility.
Cure Mechanism	Sikasil® AS-787 SL starts to cure immediately after mixing the two components. The speed of the reaction depends mainly on the temperature, i.e. the higher the temperature, the faster the curing process. Heating up to (but not above 50°C -- as it may lead to bubble formation) is possible to speed up curing. Since the curing process does not require moisture, the product may also be used in totally confined spaces. 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. For more information, contact the Technical Services Department of Sika Industry.
Application Limits	For specific information regarding compatibility between various Sikasil® products, contact the Technical Services Department of Sika Industry. All materials in contact with Sikasil® AS-787 SL need to be approved by Sika prior to use. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next. Sikasil® engineering sealants and adhesives may only be used in industrial assembly applications by experienced professionals and after a detailed examination and written approval of the corresponding project details by the Technical Services Department of Sika Industry. The suitability of Sikasil® AS-787 SL for a specific application, including compatibility and adhesion, must be tested in advance on the actual substrates and under real-life conditions. The above information is offered for general guidance only. Advice on specific applications will be given upon request.
Surface Preparation	Surfaces must be clean, dry and free from oil, grease and dust. Advice on specific applications and surface pretreatment methods is available from the Technical Services Department of Sika Industry.
Mixing	This is a two-component product that requires thorough mixing for proper performance; mix both components in the correct ratio (to an accuracy of +/- 10%) to obtain a homogeneous and air-bubble-free mixture. Most commercially available metering and mixing equipment is suitable. Please contact Technical Services for specific advice. Note: While Component A is stable in air, Component B is moisture sensitive and must be exposed to air only very briefly.
Removal	Uncured sealant may be removed from tools and equipment with Sika® Remover-208 or other suitable solvent. The static mixer of the metering and mixing equipment can be cleaned with Sikasil® Mixer Cleaner or other suitable cleaner. Hands and exposed skin should be washed immediately using Sika® Hand Cleaner towels or other suitable industrial hand cleaner and water. Do not use solvents!
Further Information	Copy of the following publications are available upon request: - <i>Material Safety Data Sheet</i> ; - General Guideline "Bonding and Sealing with Sikasil® AS Adhesives"; - <i>Sikasil® AS-787 SL - Additional Product Information</i> .
Packaging	Component A: 230 kg Drums and 20 kg Pails; Component B: 18 kg Pails
Value Bases	All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data for the appropriate type of substance. Product Data Sheets and Material Safety Data Sheets are available on our website at: www.sika.ca or via your local Technical Sales Representative.

The information, and in particular, the recommendations relating to the application and end-use 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, within their shelf life. 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 recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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