

Sikasil® SG-10

Fast Cure Neutral Silicone Assembly Sealant

Technical Product Data (typical values)

Chemical Base	1-C silicone	
	Pigmented	Translucent
Color	Pigmented	Translucent
Cure mechanism	Moisture	Moisture
Cure type	Oxime	Oxime
Density (uncured)	11.9 lbs./gal.	8.6 lbs./gal.
VOC	21 g/L (0.18 lb./gal.)	21 g/L (0.18 lb./gal.)
Non-sag properties - Vertical @120°F (49°C) (ASTM C-639)	Non-sag	Non-sag
Slump (ASTM D-2202)	Nil	Nil
Skin Time (MNA Method)	6 minutes	8 minutes
Tack free time ² (ASTM D-679)	12 minutes	18 minutes
Extrusion Rate g/min (ASTM C-1183 modified) 1/8" orifice @ 90 psi	300	500
Curing speed (MNA Method)	1/8 inch 12 hours	1/8 inch 12 hours
Shrinkage	nil	nil
Shore A-hardness (ASTM C-661)	35 +/-5	12 +/-5
Tensile strength psi (mpa) (ASTM D-412)	300 psi (2.07)	190 psi (1.31)
Elongation at break (ASTM D-412)	400 %	600 %
Bond durability - glass/ aluminum / concrete (ASTM-C793)	± 25 %	± 25 %
Movement capability (ASTM C-719)	± 25 %	± 25 %
Application Temperature ¹ product only	-35° to 140°F (-32 to 40°C)	-35° to 140°F (-32 to 40°C)
Service temperature	- 80° to 350°F (-62.2° to 176°C)	- 80° to 350°F (-62° to 176°C)
Weathering Resistance	Excellent	Excellent
Shelf life (storage below 90°F (32°C))		
Cartridge and Unipac	12 months	12 months
Drum and Pail	12 months	12 months

¹ Substrate and Air Temperature must be between 40° - 105°F (5° - 40°C). See "Application" Section for details.

² 77°F (25°C) / 50% r.h.

Description

Sikasil®SG-10 is a fast curing, one-component, non-sag, elastomeric, neutral cure silicone sealant. Meets the requirements of ASTM-C920, Type S, Grade NS, Class 25, Use NT, T, M, G, A, O; TT-S-00230C, Type II, Class A; TT-S-001543A, Class A; CAN/CGSB-19.13-M87, AAMA 802.3 Type I and II, AAMA 803.3 Type I, AAMA 805.2, AAMA 808.3 and California Air Resources Board 2003 requirements for Volatile Organic Compound content. Sikasil®SG-10 is especially suitable for window fabrication and has passed the Florida Hurricane Glazing Code when used in designed systems.

Product Benefits

- Extremely long service life
- Faster production capability in assembly processes
- High early green strength, fast cure
- Excellent flexibility for dynamic joint movement
- Bonds to most substrates without priming
- Compatible with IG sealants
- Enhanced adhesion PVC/Vinyl, glass, aluminum, metals, powder coated surfaces, tiles, fiberglass, plastic, ceramic and wood
- AAMA Certified component for standard and impact glazing when used in designed systems

Areas of Application

- Window and door fabrication
- Back bedding and cap, toe and heel beads
- Perimeter sealing of windows, doors and skylights
- Conventional and Impact glazing
- Kitchen and bath countertops/solid surfaces, Sanitary Seals
- Marine cabins
- Truck/Trailer/Auto/RV production
- Component assembly processes

Typical Substrates

- Vinyl, glass, aluminum, powder coated aluminum, metals, tile, fiberglass, plastic, ceramic and wood

Industry



Coverage

Cartridge: Approximately 12.2 linear ft. (3.7 lin. m) for ½ x ¼ in (13 x 6 mm) bead.

Cure Mechanism

Sikasil®SG-10 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly (see diagram below).

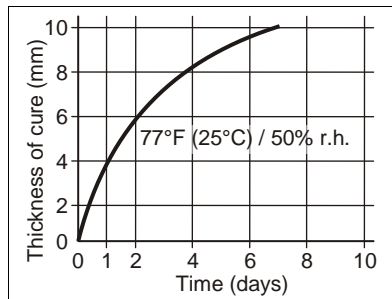


Diagram 1: Curing speed Sikasil® SG-10

Chemical Resistance

Sikasil®SG-10 is resistant to UV radiation, fresh water, seawater and proprietary aqueous cleaning agents; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; no resistance to organic acids, concentrated mineral acids, caustic solutions and solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request. Contact Technical Service at (tsmh@us.sika.com).

Method of Application

Surface preparation

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion. Project specific substrates must always be submitted for testing before consideration in high demand applications.

POROUS SUBSTRATES – Clean by mechanical methods to expose a sound surface free of contamination.

NON-POROUS SUBSTRATES – For cleaning non-porous substrates, use two cloth cleaning method using isopropyl alcohol, xylene or an approved, clean, pure non-diluted industrial grade solvent. Allow solvent to evaporate completely prior to sealant application. Strictly follow solvent manufacturer's instructions for safe handling.

PRIMING Sikasil®SG-10 is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Product Data Sheet for primers **Sikasil®-2100**, or **Sikasil®-2300** available at www.sikausa.com or contact Technical Service for additional information at (tsmh@us.sika.com).

Application

In all cases, make sure the joint design is correct. Proper joint design minimizes stresses on the sealant. Use masking tape if desired for areas adjacent to the joint to be sealed to prevent surface contamination. Apply sealant to dry, clean surfaces. An air operated or hand operated cartridge gun may be used. Do not break cartridge seal until just before use. Surfaces should be dried before the sealant is applied. Normally sealant skins in 8 minutes, dries to touch in 1 hour, and bonds in 24 hours.

This product is suitable for bulk dispensing straight from drums or pails by means of a pneumatic or hydraulic pump system. For advice on selecting and setting up a suitable pump system please contact our Technical Service Department at (tsmh@us.sika.com).

Expansion Joint

Apply using professional caulking gun. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Tool sealant to create a concave joint shape and ensure maximum adhesion. Dry tooling is recommended.

Adhesive Joint

Apply using professional caulking gun, dispensing equipment or trowel. Use sufficient quantity of adhesive to one or both substrates to provide designed contact area. Surfaces may be moved up to one hour after application without loss of adhesive strength.

Tooling and finishing

Tool joint, if necessary, and remove masking tape. Tooling should be completed in one continuous stroke. Tool immediately after sealant is applied and before a skin begins to form. Dry tool - DO NOT use soap or oil as a tooling aid. Remove masking tape immediately after tooling is completed. Complete Tooling of product within 5 minutes of sealant application.

Removal

Uncured sealant may be removed from tools and equipment with solvents such as isopropyl alcohol or xylene, if cleaned before sealant has begun to cure.. Strictly follow solvent manufacturer's instructions for use and warning statements. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed with soap and water immediately after use. Do not use solvents on skin!

Overpainting

Sikasil® SG-10 cannot be overpainted.

Limitations

- Not intended for structural glazing applications. Contact Technical service at (tsmh@us.sika.com) for specifics if required.
- Do not allow sealant to come in contact with solvent during cure.
- Do not allow sealant to come in contact with curing polyurethane sealants during cure.
- Not intended for water immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean.
- Not recommended for absorptive surfaces such as natural stone particularly limestone or marble where staining may occur. Test before use.
- Do not apply to surfaces that will be painted.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may be discolored through contact; test sample prior to application.
- Test sensitive substrates, such as mirror backings for compatibility before use.

WARNING: IRRITANT, SENSITIZER.

Contains Methyl ethylketoxime (CAS: 96-29-7), Oximino Silane (Trade Secret). Direct eye contact may cause irritation. Eye contact may cause conjunctivitis, corneal damage, or severe chemical burns. May cause skin irritation and sensitization. May be absorbed through the skin. May cause irritation to respiratory system. May cause drowsiness. May be harmful if swallowed. If heated, silicones can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant

Further information available at:
www.sikausa.com

Sika Corporation Industry Products
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Madison Heights, MI 48071
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to the eyes, nose, throat, skin, and digestive system. Product contains oximes, possible skin sensitizers.

Drum	52 gal (197 L) in 55 gal drum
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OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

HMIS

Health	*1
Flammability	1
Reactivity	0
Personal Protection	C

Value Basis

All technical data stated on this Product Data Sheet are based on the results of laboratory tests only. Actual measured data in the field may vary due to site specific conditions which are not known to Sika and beyond our control.

Legal Notes/Disclaimer

All information provided by Sika Corporation ("Sika") concerning Sika products, including but not limited to, any recommendations and advice relating to the application and use of Sika products, is given in good faith based on Sika's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with Sika's instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika's control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s).

FIRST AID

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to Material Safety Data Sheet (MSDS) for further information.

Handling And Storage

Use with adequate ventilation. Product evolves Methyl ethyl ketoxime (MEKO) and methanol when exposed to water or humid air. Provide adequate ventilation to control MEKO within exposure guidelines. Keep container closed and store away from water or moisture or oxidizing materials.

When stored in the original, unopened containers at or below 90°F (32°C), shelf life is one year. A product skin may form in pails and drums, remove prior to use.

Further Information

Copies of the following publications are available on our website www.sikausa.com or by contacting (tsmh@us.sika.com)

- Material Safety Data Sheet
- Product Data Sheet

Clean Up

Observe personal protective equipment recommendations described in MSDS. Disposal of collected product, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Ventilate area. Contain spill. Evacuate unprotected personnel from hazard area. Wipe up and contain for disposal. Cover with absorbant, place in approved drum. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard.

In case of emergency call:
Chemtrec: 800-424-9300
International: 703-527-3887

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety related data. It is highly recommended to read the actual Material Safety Data Sheet before using the product.

Limited Material Warranty

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY**

- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- KEEP CONTAINER TIGHTLY CLOSED
- FOR PROFESSIONAL USE ONLY

Packaging Information

Cartridge	10 fl. oz. (295ml)
Pail	4.5 gal (17 L) in a 5 gal pail

Further information available at:
www.sikausa.com

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Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Material Safety Data Sheet which are available at www.sikausa.com. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Material Safety Data Sheet prior to product use.

