

Sikasil[®]-GP / GP High Temp. Red

General Purpose Acetoxy Cure Silicone

Technical Product Data (typical values) *Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

		Sikasil [®] -GP	Sikasil [®] -GP Hi Temp Red
Chemical Base		1-C silicone	
Color		Multiple	Red
Cure mechanism		Moisture	
Cure type		Acetoxy	
Density (uncured)		8.10 lb/gal	8.8 lb./gal.
VOC		29 g/L	20 g/L
Non-sag properties	(ASTM C-639)	Non-sag	Non-sag
Skin Time	(MNA Method)	20 minutes	20 minutes
Tack free time ²	(ASTM D-679)	30 minutes	30 minutes
Curing speed	(MNA Method)	1/8 inch 24 hours	1/8 inch 24 hours
Shrinkage		nil	nil
Shore A-hardness	(ASTM C-661)	20 +/-5	25 +/-5
Tensile strength	(ASTM D-412)	220 psi	325 psi
Elongation at break	(ASTM D-412)	400%	400 %
Peel Strength	(ASTM C-794)	20 pli	
Movement capability	(ASTM C-719)	+/-25	
Application Temperature ¹	product only	-35° to 140°F (-32 to 40°C)	
Service temperature	permanent	- 76° to 350°F (-60° to 177°C)	- 60° to 500°F (-51° to 260°C)
	intermittent	392°F (200°C)	550°F (287°C)
Weathering Resistance		Excellent	Excellent
Shelf life (storage below 90°F (32°C))		24 months	24 months

¹⁾ Substrate and Air Temperature must be between 15° - 120°F (-26 - 49°C). See "Application" Section for details.

²⁾ 77°F (25°C) / 50% r.h.

Description

Sikasil[®]-GP products are general purpose, one-component, non-sag, elastomeric, RTV acetoxy silicone sealants with good adhesion characteristics for general sealing and bonding applications. Meets the requirements of Type S, Grade NS, Class 25, Use NT, G, A, O. Recognized under UL QMFZ2, ANSI/NSF Standard 51 for direct food contact and California Air Resources Board 2003 requirements for Volatile Organic Compound content. Sikasil[®]-GP maintains elastomeric properties up to 275° F continuous, 325°F intermittent, and Sikasil[®]-GP HT (High Temperature) red up to 500°F continuous, 550°F intermittent. Sikasil[®]-GP HT Red also meets federal specification TT-S-005143A, Class A, MIL-A-46106. Meets the requirements of C-920, Type S, Grade NS, Class 25, Use NT, G, A, O.

Product Benefits

- One-component ready to use
- Excellent for dynamic joint movement & dissimilar materials, Joint movement ±25%
- Excellent adhesion, bonds to many substrates without priming
- Fast Cure - Move assembled or sealed parts quickly
- Wide service temperature / durability
- Superior gunning & tooling
- High temperature red for temperature resistance up to 550°F
- Contains Anti-microbial additive for mold resistance.

Areas of Application

- Sealing & glazing of windows, doors and skylights
- Conventional glazing and Storefronts
- Kitchen and bath countertops, Sanitary seals
- HVAC, Plumbing, Roofing
- Sealing trucks, trailers and RVs
- Marine applications
- Appliance Assembly

Typical Substrates

- Glass, aluminum, tile, fiberglass, plastic, ceramic, wood, steel and painted metals

Industry



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Coverage

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

Cure Mechanism

Sikasil®-GP 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).

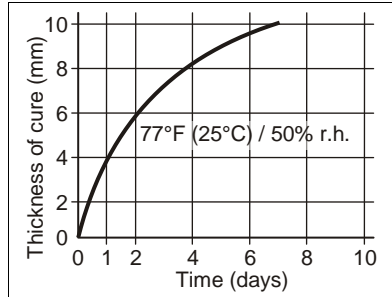


Diagram 1: Curing speed Sikasil®-GP

Chemical Resistance

Sikasil®-GP 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@sika-corp.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.

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 xylene, isopropyl alcohol or an approved, clean, pure non-diluted industrial grade solvent. Allow solvent to evaporate completely prior to sealant application. Strictly follow solvent manufacturer's warnings and instructions for use.

PRIMING Sikasil®-GP 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 Technical Data Sheet for primers **Sika® Aktivator®-205** or **Sikasil®-2100** available at www.sikausa.com or contact Technical Service for additional information at (tsmh@sika-corp.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 10 minutes, dries to touch in 1 hour, bonds in 24 hours and fully cures in 7 days dependant on temperature and humidity.

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

Expansion Joint

Apply using caulking gun, dispensing equipment or trowel. Use sufficient quantity of adhesive to one or both substrates to provide designed contact area.

Adhesive 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.

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, water 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 Sikasil®-GP 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®-GP cannot be overpainted.

Limitations

- Sikasil®-GP Hi Temp Red product does not contain anti-microbial additive
- Test substrates for adhesion characteristics and acceptability
- Certain substrates may require a primer.
- Do not allow sealant to come in contact with solvent during cure.
- Not intended for long term water immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean.
- Maximum depth of sealant must not exceed 1/2 inch; minimum depth 1/8 inch.
- Do not apply to surfaces that will be painted.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- May stain porous substrates such as natural stone. Test before use.
- Do not apply to damp or wet substrates.
- Do not apply to surfaces sensitive to corrosion by acetic acid or vapors.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age 6 months before application.
- Not intended for structural glazing
- Not for use in sealing insulating glass
- Test sensitive substrates, such as mirror backings for compatibility before use.

WARNING: IRRITANT, SENSITIZER.

Contains Ethyltriacetoxysilane (CAS: 17689-77-9) and Methyltriacetoxysilane (CAS: 4253-34-3). Direct eye contact may cause irritation. May cause skin and respiratory irritation. May cause drowsiness. May cause vomiting. When heated, product can form formaldehyde vapors. Formaldehyde is a potential cancer hazard, a known skin and respiratory sensitizer, and an irritant to



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the eyes, nose, throat, skin and digestive system.

HMIS

Health	2
Flammability	1
Reactivity	0
Personal Protection	C

FIRST AID

Inhalation – Remove to fresh air. **Eyes** - Rinse with tepid water for 15 minutes. Call physician. **Skin** – Wash thoroughly with soap and tepid water. Remove contaminated clothing. **Ingestion** – Do not induce vomiting. Dilute with water. Call physician.

Further Information

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

- Material Safety Data Sheet
- Product Data Sheet

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.

- 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)
Drum	52 gal.

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.

Handling and Storage

Avoid direct contact. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent direct contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use a properly fitted NIOSH respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse.

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 absorbent, place in approved drum. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard.

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 OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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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.



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