

## Product Data Sheet

Version 03/2011 (05/2012)

**Sikasil® GP**

## General-Purpose Acetoxy-Cure Silicone

## Technical Data

|   |                                |
|---|--------------------------------|
| Chemical Base                               | 1-C Silicone                   |
| Colour                                      | White, Black, Aluminium, Clear |
| Cure Mechanism                              | Moisture                       |
| Cure Type                                   | Acetoxy                        |
| Density (uncured)                           | 0.98 Kg/L approx               |
| VOC   | 36 g/L                         |
| Non-sag Properties (ASTM C-639)             | Non-Sag                        |
| Skin Time (MNA Method)                      | 10 minutes                     |
| Application Temperature                     | product<br>substrate and air   |
|   | -32°C to 40°C<br>-26 to 49°C   |
| Tack-Free Time <sup>1</sup> (ASTM D-679)    | 15 minutes                     |
| Curing Speed (MNA Method)                   | 3 mm - 24 hours                |
| Shrinkage                                   | nil                            |
| Shore A Hardness (ASTM C-661)               | 25 +/- 5                       |
| Tensile Strength (ASTM D-412)               | 1.51 MPa approx                |
| Elongation at Break (ASTM D-412)            | 350%                           |
| Peel Strength (ASTM C-794)                  | 35 N/cm                        |
| Movement Capability (ASTM C-719)            | +/-25                          |
| Service Temperature                         | (permanent)<br>(intermittent)  |
|   | -62 to 232°C<br>260°C          |
| Shelf Life (Storage below 32°C)             | 12 months                      |
| <sup>1</sup> 25°C and 50% Relative Humidity |                                |

## Description

SikaSil®-GP is a general-purpose, one-component, non-sag, elastomeric, 100% RTV acetoxy silicone sealant. Meets the requirements of ASTM C-920, Type S, Grade NS, Class 25, Use NT, G, A, O; TT-S-01543A, Class A; CAN/CGSB-19.13-M87, recognized under UL MFZ2, MIL-A- 46106, ANSI/NSF Standard 51 for direct food contact and California Air Resources Board 2003 requirements for Volatile Organic Compound content. Maintains elastomeric properties up to 232°C continuous, 260°C intermittent. Meets federal specification TT-S-005143A, Class A.

## Product Benefits

- One-component - ready for use;
- Excellent for dynamic joint movement and dissimilar materials; accommodates joint movement of +/- 25%;
- Excellent adhesion; bonds to many substrates without priming;
- Fast-cure - assembled or sealed parts can quickly be moved;
- Wide service temperature/durability;
- Superior gunning and tooling;
- High temperature resistance - up to 260°C;
- Anti-microbial additive for mould resistance;
- Excellent weathering resistance.

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## Areas of Application

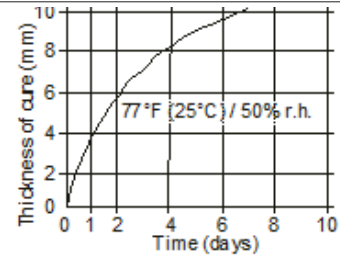
- Sealing and glazing of windows, doors and skylights;
- Conventional glazing and store-fronts;
- Kitchen and bath countertops; sanitary seals;
- HVAC, plumbing, roofing;
- Sealing trucks, trailers and RVs;
- Marine applications;
- Appliance assembly.

## Typical Substrates:

- Glass, aluminium, tile, fibreglass, plastic, ceramic, wood, steel and painted metals.

## 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.



Sikasil® GP Curing Speed

## 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; and **not resistant** to organic acids, concentrated mineral acids, caustic solutions and solvents. The above information is offered for general guidance only. Please consult Sika Canada Inc.'s Technical Services for advice on specific applications.

## Application Limits

- Not intended for structural glazing or for porous substrates such as concrete, stone, marble and granite;
- The minimum sealant depth is 3 mm (1/8 in), the maximum is 13 mm (1/2 in);
- Do not apply to surfaces sensitive to corrosion by acetic acid or vapours;
- Lower temperature and humidity will extend tack free and cure rates;
- Do not apply to damp or wet surfaces;
- May be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Sika Canada Technical Services for more information;
- Do not apply to surfaces that are to be painted, as the sealant surface will not hold paint;
- Do not apply to substrates that bleed oil, plasticizers or solvent;
- Do not allow the uncured material to come in contact with solvent or curing polyurethanes;
- This material is not intended for long term immersion in water;
- Test sensitive substrates, such as mirror backings for compatibility before use;
- Allow treated wood to age for at least six months before application of the sealant.

## Surface Preparation

All joint surfaces must be clean, sound, dry, frost-free and free of any oils, grease or incompatible sealers, paints or coatings that may interfere with adhesion. **Porous substrates** should be cleaned by mechanical methods to expose a sound surface, free of contamination. **Non-porous substrates** should be cleaned by using a solvent wipe method, applied by lint free and clean rags and allow the solvent to evaporate before installing the sealant. Xylene or an approved commercial solvent can be used, ensuring the solvent manufacturer's instructions are strictly followed.

## Priming

Sikasil®-GP is designed to obtain adhesion without the use of a primer; however, certain substrates may require priming. Consequently, prior testing of the adhesive/sealant with and without priming is required to determine which method is appropriate. For assistance and advice, contact Sika Technical Services.

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|                                      |  |
|--------------------------------------|--|
| <b>Application</b>                   | <p>This product is suitable for bulk dispensing straight from drums or pails by means of a pneumatic or hydraulic pump system. For recommendation on selecting and setting up a suitable pump system, please contact our Technical Services.</p> <p><b>As Joint Sealant:</b> Make sure joint design is correct. For best performance Sikasil®-GP should be gunned into joints when joint slot is at the mid-point of its designed expansion and contraction. Do not open the product container until preparation and, where necessary, priming work has been completed. Apply the sealant using a professional caulking gun or dispensing equipment. Place the nozzle deep into the joint and gun with a steady and even flow of sealant preceding the nozzle to avoid air entrapment. Also avoid overlapping of the sealant as this also entraps air. Extrude in one continuous operation with consistent positive pressure to force the material into the joint.</p> <p><b>As Bonding Adhesive:</b> Apply using caulking gun, dispensing equipment or trowel. Use sufficient quantity of adhesive on one or both substrates to provide designed contact area. If needed, use fasteners or temporary support to hold substrates until adhesive has cured. Cure times vary with temperature, humidity and porosity of joined substrates.</p> |
| <b>Tooling and Finishing</b>         | <p>Tool the sealant at once after application and before a skin forms (approximately 10 minutes). Tool to a concave shape and ensure adequate pressure to achieve maximum adhesion with the joint walls. Dry tooling is recommended.</p> <p><b>Note:</b> Do not use spray water or other liquids when tooling.</p>   |
| <b>Removal</b>                       | <p>Clean all tools and equipment and remove excess sealant from substrates, all while the material is uncured, using a commercial solvent, such as xylene. Strictly follow the manufacturer's instructions for use and warnings. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.</p>   |
| <b>Over-Painting</b>                 | <p>Sikasil® GP cannot be overpainted.</p>  |
| <b>Further Information</b>           | <p>Copy of the following publication is available upon request: <i>Material Safety Data Sheet</i>.</p>   |
| <b>Packaging</b>                     | <p>24 x 295 ml Cartridges per Case; 197 Litre Drums (White and Clear only)</p>   |
| <b>Value Bases</b>                   | <p>All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.</p>   |
| <b>Health and Safety Information</b> | <p>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: <a href="http://www.sika.ca">www.sika.ca</a> or via your local Technical Sales Representative.</p>  |

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# Industry

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