

SikaSil® SG-20

High strength structural silicone adhesive

Technical Product Data (Typical Values)

Chemical base	1-C silicone
Color	Black, gray, white
Cure mechanism	Moisture
Cure type	Neutral
Density, uncured, Typical (CQP 006-4)	11.4 lb/gal
Non-sag properties	Low Sag
Application temperature	41°F to 104°F (5°C to 40°C)
Skin time ¹	15 min
Tack free time ¹	180 min
Curing speed	(see diagram 1)
Shore A-hardness, (ASTM D2240)	39
Tensile strength, (ASTM D 412)	320 psi
Elongation at break, (ASTM D 412)	450%
Tear propagation resistance, (ASTM D624)	40 pli
Movement accommodation factor, (ISO 11 600)	+/- 25%
Service temperature	-40°F-302°F (-40°C-150°C)
Shelf life (storage below 77°F (25°C))	9 months

¹ 73°F (23°C) / 50% r.h. CQP=Corporate Quality Procedure

Description

SikaSil® SG-20 is a neutral curing silicone adhesive which combines mechanical strength with high elongation. It has excellent adhesion to a wide range of substrates. SikaSil® SG-20 is manufactured in accordance with ISO 9001/14001 quality assurance system and the responsible care program.

Product Benefits

- Outstanding UV and weathering resistance
- Excellent bond to glass, metals, coated metals, plastics and wood
- Fire rated (EN 11925-2/DIN 4102-B1)
- Meets requirements of ASTM C1184
- Neutral cure

Areas of Application

SikaSil® SG-20 can be used for structural sealant glazing or as a residential window backbedding / glazing adhesive, or for bonding solar modules and other high-demanding industrial applications. Tests with original substrates and conditions must be performed to ensure adhesion and material compatibility.

Industry



Cure Mechanism

SikaSil® SG-20 cures by reaction with atmospheric moisture. The curing speed depends on the relative humidity and temperature. Heating above 122°F (50°C) is not advisable as it may lead to bubble formation. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly (see diagram below).

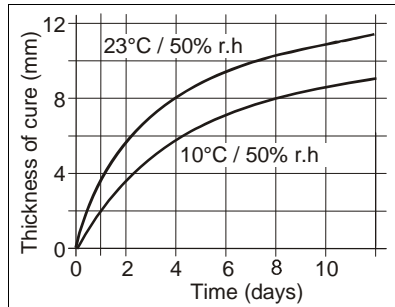


Diagram 1: Curing speed Sikaflex®-TS Plus

Chemical Resistance

SikaSil® SG-20 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; not resistant 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 the Technical Service Department of Sika Industry at tsmh@sika-corp.com.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from all traces of oil, grease, dust, rust, and other contaminants. Advice on specific applications and surface pretreatment methods is available from the Technical Service Department of Sika Industry at tsmh@sika-corp.com.

Application

After suitable joint and substrate preparation, SikaSil® SG-20 is

gunned into place. Joints must be properly dimensioned as changes are no longer possible after construction. Basis for calculation of the necessary joint dimensions are the technical values of the adhesive and the adjacent building materials, the exposure of the building elements, their construction and size as well as external loads. Joints deeper than 0.6in (15mm) should be avoided. For more information, please contact the Technical Service Department of Sika Industry at tsmh@sika-corp.com.

Tooling and finishing

Tooling and finishing of SikaSil® SG-20 must be carried out within its skin time. When tooling freshly applied SikaSil® SG-20 press the adhesive into the joint to get a good wetting of the bonding surface. No tooling agents should be used. Dry tool only.

Removal

Uncured SikaSil® SG-20 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Strictly follow solvent manufacturer's instructions for use and warnings. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately after use. Do not use solvents on skin!

Overpainting

SikaSil® SG-20 cannot be overpainted.

Limitations

All SikaSil® silicone sealants and adhesives are compatible with each other. All other sealants have to be approved by Sika before using them in combination with SikaSil® SG-20. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next.

SikaSil® SG-20 may only be used in structural glazing or window bonding applications by experienced professionals. **It is the end user's**

responsibility to determine the suitability of the product for their windows and conduct appropriate testing for verification.

The compatibility of gaskets, backer rods, setting blocks and other accessory materials with SikaSil® SG-20 must be tested in advance.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

Cautions

WARNING: IRRITANT, SENSITIZER. Contains Polyisocyanate Pre-polymer (Mixture). Causes eye irritation. May cause skin/respiratory irritation. May cause skin and/or respiratory sensitization after prolonged or repeated contact. May be harmful if swallowed. Use only in well ventilated areas. **Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions. DO NOT USE IN DRINKING WATER SYSTEMS OR SWIMMING POOLS.**

Handling, Storage and Cleanup

Handling and Storage

Avoid direct contact. Remove contact lenses prior to use. Wear personal protective equipment (chemical resistant goggles/gloves/clothing) to prevent 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 and before reinserting lenses. Remove contaminated clothing and launder before reuse. Store in unopened containers in dry conditions.

Cleanup

Use personal protective equipment (chemical resistant goggles/ gloves/ clothing). Without direct contact, remove spilled or excess product and place in a suitable sealed container. Dispose of excess product and container in accordance

Further information available at:
www.sikaindustry.com

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with applicable environmental regulations.

HMIS

Health	*1
Flammability	1
Reactivity	0
Personal Protection	C

First Aid Measures

Eyes - Hold eyelids apart and flush thoroughly with water for 15 minutes. **Skin** - Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. **Inhalation** - Remove to fresh air. **Ingestion** - Do not induce vomiting. Dilute with water. Contact physician. **In all cases, contact a physician immediately if symptoms persist.**

Further Information

Copies of the following publications are available at www.sikaindustry.com.

- Material Safety Data Sheets
- Product Data Sheets
- General guidelines for bonding and sealing with Sika products

Packaging Information

Cartridge	10.5 oz
Unipac	20 oz
Pail	4.8 gal
Drum	50 gal

Important

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**

**In case of emergency, call
CHEMTREC at 1-800-424-9300,
International 703-527-3887**

**For more information, consult Material
Safety Data Sheet and Product Data
Sheets available through
www.sikaindustry.com**

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.

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.**

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

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Sika reserves the right to change the properties of its products without notice. All sales of Sika product(s) are subject to its current terms and conditions of sale which are available at www.sikacorp.com or by calling 201-933-8800.

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.sikaindustry.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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