

Sikaflex[®]-254 Booster

Fast-curing structural adhesive

Technical Product Data

Properties	With Booster	Without Booster
Chemical base	1-C polyurethane with curing accelerator	1-C polyurethane
Colour (CQP ¹⁾ 001-1)	Black, white	
Cure mechanism	Moisture-curing ²⁾	
Density (uncured) (CQP 006-4)	1.25 kg/L approx.	
Mixing ratio	by volume	2% (1.8 – 2.2%)
Non-sag properties	Very good	
Application temperature	10 - 30°C	
Tack-free time ³⁾ (CQP 019-1)	45 min.	
Open time ³⁾ (CQP 526-1)	20 min. approx.	45 min. approx.
Curing speed (CQP 049-1)	See diagram 1	3.5 mm in the 1 st 24 h
Early tensile strength ²⁾ (CQP 063-1) (time to reach 1 N/mm ²)	5 h approx.	
Shrinkage (CQP 014-1)	1% approx.	
Shore A hardness (CQP 023-1 / ISO 868)	45 approx.	
Tensile strength (CQP 036-1 / ISO 37)	3 N/mm ² approx.	
Elongation at break (CQP 036-1 / ISO 37)	400% approx.	
Tear propagation resistance (CQP 045-1 / ISO 34)	9 N/mm approx.	
Tensile lap-shear strength (CQP 046-1 / ISO 4587)	2.2 N/mm ² approx.	
Shear modulus (CQP 081-1)	0.6 N/mm ² approx.	
Glass transition temperature (CQP 509-1 / ISO 4663)	-40°C	
Volume resistivity (CQP 079-2 / ASTM D 257-99)	1 x 10 ⁹ Ω cm approx.	
Service temperature (CQP 513-1)	permanent	-40 - 90°C
Short term	4 hours	140°C
	1 hour	160°C
Shelf life (CQP 016-1)	sausages	9 months
(storage below 25°C)	drum / pail	6 months

¹⁾ CQP = Corporate Quality Procedure

²⁾ Moisture provided by Sika Booster Paste

³⁾ 23°C / 50% r.h.

Description

Sikaflex[®]-254 is a non-sag 1-C polyurethane adhesive that cures with the aid of Sika[®] Booster (cure accelerator), or alternatively on exposure to atmospheric humidity, to form a durable elastomer.

Sikaflex[®]-254 Booster is manufactured in accordance with ISO 9001 / 14001 quality assurance system.

Product Benefits

- 1-C formulation with accelerated cure
- Thixotropic
- Adequate working time to complete assembly, despite rapid cure
- Solvent free
- Bonds well to a wide variety of substrates
- Elastic/good gap-filling capabilities
- Capable of withstanding high dynamic stresses
- Sandable and overpaintable

Areas of Application

Sikaflex[®]-254 Booster is suitable for structural joints which are exposed to dynamic stresses and the attainment of high early strength is essential. Sikaflex[®]-254 Booster is ideal to bond large components and assemblies.

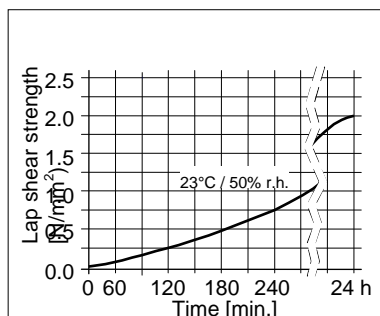
This product is only suitable for professional experienced users. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



Cure Mechanism

Sikaflex®-254 cures by reaction with atmospheric moisture. When used in conjunction with Sika® Booster, curing proceeds more rapidly and largely



independent of atmospheric moisture.

Diagram 1: Strength build up of Sikaflex®-254 with Booster

Chemical Resistance

Sikaflex®-254 Booster is resistant to fresh water, seawater, and proprietary aqueous cleaning agents; temporary resistant to fuels, mineral oils, vegetable and animal fats; not resistant to organic acids, concentrated mineral acids and caustic solutions or solvents.

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

Method of Application

Surface preparation

Surfaces must be clean, dry and free from all traces of grease, oil and dust.

As a rule the bond faces must be prepared in accordance with the instructions given in the current Sika Primer Chart. Due to the wide variety of substrate compositions preliminary tests are recommended.

Advice on specific applications is available from the technical service department of Sika Canada.

Application

Sausages: Place sausage in the application gun and snip of the closure clip. Cut of the tip of the nozzle to suit joint width. For satisfactory results the adhesive must be applied with a piston-type gun (hand-, battery- or compressed air operated). Sausages are used without Booster.

Pails/drums: Sikaflex®-254 with Booster is dispensed straight from pails and drums by means of a pump system equipped with a Sika® Booster dosing unit. The mixing ratio is $2\% \pm 10\%$ (1.8 – 2.2 %). To ensure a uniform thickness of adhesive when compressed, we recommend applying the adhesive in the form of a triangular bead (see figure 1).

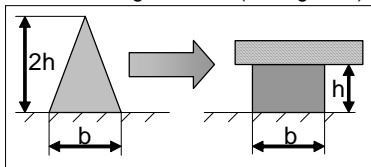


Figure 1: Recommended bead configuration

Do not apply at temperatures below 10°C or above 30°C. The optimum temperature for substrates is between 15°C and 25°C.

Pour obtenir des conseils concernant la sélection et la mise en place d'un système de pompage convenable, veuillez contacter le département du service technique de Sika Canada.

Tooling and finishing

Excellent tooling results are limited to Sikaflex®-254 without Booster. If used with Booster, tooling has to be performed immediately after application, but may not result in flat surface.

Clean up

Uncured Sikaflex®-254 Booster may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin should be washed immediately using Sika® Hand Cleaner Towels or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex®-254 Booster can be overpainted when tack-free. Pre-testing is always recommended. For details refer to the general guide lines for bonding and sealing with Sikaflex products.

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Sika Primer Chart

Packaging Information

Sikaflex®-254 Booster

Sausage	600 mL
Pail	23 L
Drum	195 L

Sika Booster

Sausage	600 mL
Pail	23 L

Value Basis

All technical data stated in this Product Data Sheet and laboratory test based. Current measured values may vary due to factors beyond our control.

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.

All Product Data Sheets and Material Safety Data Sheets are also available on our web site.

Legal Notes

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.

Further information available at:
www.sika.ca

Sika Canada Inc.
601 Delmar Avenue
Pointe-Claire, QC H9R 4A9
Tel : 514-697-2610
1-800-689-7452
Fax : 514-697-3910

An ISO 9001:2000 certified company
Pointe-Claire : ISO 14001:2004 certified EMS