

Sikaflex[®]-254 Booster

Fast curing structural adhesive

Technical Product Data

Properties	With Booster	Without Booster
Chemical base	Accelerated PUR	1-C polyurethane
Colour (CQP ¹ 001-1)	Black, white	
Cure mechanism	Moisture curing ²	Moisture curing
Density (uncured) (CQP 006-4)	1.25 kg/l approx.	
Mixing ratio (by volume)	2% (1.8 – 2.2%)	
Non-sag properties	Very good	Very good
Application temperature	10°C to 30°C	10°C to 30°C
Tack-free time ³ (CQP 019-1)	45 min.	45 min.
Open time ³ (CQP 526-1)	20 min. approx.	45 min. approx.
Curing speed (CQP 049-1)	See diagram 1	3.5mm in 24 hours
Early tensile strength ² (CQP 063-3) (time for 1N/mm ²)	5 hours 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°C to 90°C
Short term	4 hours	140°C
	1 hour	160°C
Shelf life (CQP 016-1)	cartridge	9 months
(storage below 25°C)	drum / hobbock	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 1C polyurethane adhesive of stiff, paste like consistency 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 ISO9001 / 14001 quality assurance system and the responsible care program.

Product Benefits

- 1C 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.

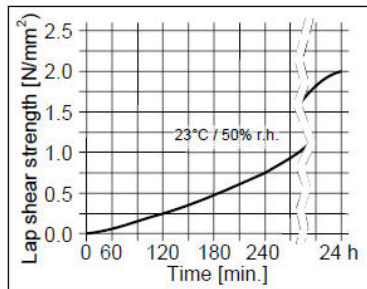


Diagram 1: Curing speed for Sikaflex®-254 Booster

Chemical Resistance

Sikaflex®-254 Booster is resistant to fresh water, seawater, and proprietary aqueous cleaning agents. Temporarily 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 Industry.

Application

Unipacs: Place Unipac in the application gun and snip of the closure clip. Cut off 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). Unipacs are

used without Booster.

Hoblocks / drums: Sikaflex®-254 with Booster is dispensed straight from hoblocks and drums by means of a pump system equipped with a Sika® Booster dosing unit.

To ensure a uniform thickness of adhesive when compressed, we recommend applying the adhesive in the form of a triangular bead.

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

For advice on selecting and setting up a suitable pump system please contact the System Engineering Department of Sika Industry.

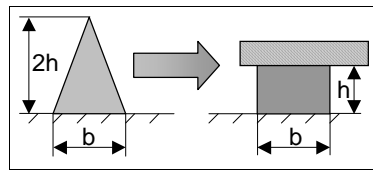


Figure 1: Recommended bead configuration

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.

Removal

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® Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex®-254 Booster can be overpainted with most conventional paint systems. The paint must be tested for compatibility by carrying out preliminary trials and the best results are obtained if the sealant is allowed to cure fully first, especially in the case of baked enamels. Please note that non-flexible paint systems may impair the elasticity of the adhesive, impair joint movement and lead to

cracking of the paint film. PVC based paints and paints that dry by oxidation are generally not suitable for application over Sikaflex®-254 Booster and two pack paint systems are preferred.

Packaging Information

Sikaflex®-254 Booster

Unipac	400 & 600 ml
Hobcock	23 l
Drum	195 l

Sika Booster Paste

Unipack	600 ml
Hobcock	23 l

Value Bases

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information

For information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets.

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 in accordance with Sika's recommendations. 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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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