

Sikaflex®-252

Structural adhesive

Technical Product Data

Chemical base	1-C polyurethane	
Colour (CQP ¹ 001-1)	Black, white	
Cure mechanism	Moisture-curing	
Density (uncured) (CQP 006-4)	1.16 – 1.22kg/l depending on colour	
Non-sag properties	Very good	
Application temperature	10°C - 35°C	
Tack-free time ² (CQP 019-1)	40 min. approx.	
Curing speed (CQP 049-1)	see diagram 1	
Shrinkage (CQP 014-1)	6% approx.	
Shore A hardness (CQP 023-1 / ISO 868)	55 approx.	
Tensile strength (CQP 036-1 / ISO 37)	4 N/mm ² approx.	
Elongation at break (CQP 036-1 / ISO 37)	>300%	
Tear propagation resistance (CQP 045-1 / ISO 34)	9 N/mm approx.	
Tensile lap-shear strength (CQP 046-1 / ISO 4587)	2.5 N/mm ² approx.	
Glass transition temperature (CQP 509-1 / ISO 4663)	-40°C approx.	
Electrical resistance (CQP 079-2 / ASTM D 257-99)	5 x 10 ⁹ Ωcm approx.	
Service temperature (CQP 513-1)	permanent	-40°C to 90°C
Short term	4 hours	130°C
	1 hour	150°C
Shelf life (storage below 25°C) (CQP 016-1)	cartridge / unipack	12 months
	drum / hobbock	12 months

¹⁾ CQP = Corporate Quality Procedure

²⁾ 23°C (73°F) / 50% r.h.

Description

Sikaflex®-252 is a non-sag 1-c polyurethane adhesive of stiff, paste-like consistency that cures on exposure to atmospheric humidity to form a durable elastomer.

Sikaflex®-252 is manufactured in accordance with ISO 9001 / 14001 quality assurance system and with the responsible care program.

Product Benefits

- 1-C formulation
- Elastic
- Can be overpainted
- Good gap-filling properties
- Capable of withstanding high dynamic stresses
- Vibration-damping
- Non-corrosive
- Electrically non-conductive
- Bonds well to a wide variety of substrates

Areas of Application

Sikaflex®-252 is suitable for structural joints that will be subjected to dynamic stresses. Suitable substrate materials are timber, metals, particularly aluminium (including anodized components), sheet steel (including phosphated, chromated and zinc-plated components), metal primers and paint coatings (2-c systems), ceramic materials and plastics. Seek manufacturer's advice before using on plastics that are prone to stress cracking. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



Cure Mechanism

Sikaflex[®]-252 cures by reaction with atmospheric moisture. At low temperature the water content of the air is generally lower and the curing reaction proceeds slower (see diagram).

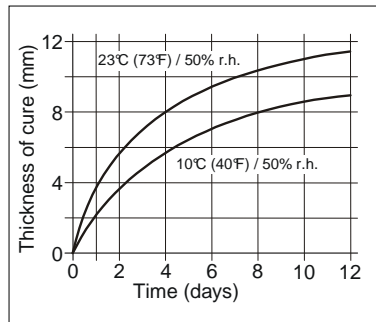


Diagram 1: Curing speed for Sikaflex[®]-252

Chemical Resistance

Sikaflex[®]-252 is resistant to fresh water, seawater, limewater, sewage effluent, dilute acids and caustic solutions. Temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils. Not resistant to organic acids, alcohol, 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 Primer Chart. Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

Cartridges: Pierce cartridge membrane.

Unipacs: Place unipac in the application gun and snip off the closure clip. Cut off the tip of the nozzle. To ensure uniform thickness of adhesive when compressed, we recommend to apply the adhesive in the form of a triangular bead (see illustration). Do not apply at temperatures below 10°C or above 35°C. The

optimum temperature for substrate and adhesive is between 15°C and 25°C. For cartridge application we recommend the use of a compressed air piston type cartridge gun.

For advice on selecting and setting up a suitable pump system, as well as on the techniques of pump operated application, please contact the System Engineering Department of Sika Industry.

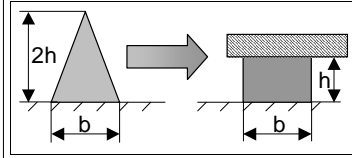


Figure 1: Recommended bead configuration

Tooling and finishing

Tooling and finishing must be carried out within the tack-free time of the adhesive. We recommend the use of Sika[®] Tooling Agent N. Other finishing agents or lubricants must be tested for suitability / compatibility.

Removal

Uncured Sikaflex[®]-252 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[®]-252 can be over-painted 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 (oil or alkyd resin based) are generally not suitable for application over Sikaflex[®]-252 and two pack paint systems are preferred.

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Sika Primer Chart
- General Guidelines Bonding and Sealing with Sikaflex[®] products

Packaging Information

Cartridge	300 ml
Unipac	400 + 600ml
Hobbock	23 l
Drum	195 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 containing physical, ecological, toxicological and other safety-related data.

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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