BUILDING TRUST

PRODUCT DATA SHEET

Sika AnchorFix®-3001

Epoxy high performance chemical anchoring adhesive

DESCRIPTION

Sika AnchorFix®-3001 is an epoxy resin based, 2-part, thixotropic, 1:1 mixing ratio, high performance anchoring adhesive. It is specifically designed for anchoring threaded rods and reinforcement bars in both cracked and un-cracked dry or damp concrete.

USES

Sika AnchorFix®-3001 may only be used by experienced professionals.

Anchoring adhesive for fixing of non-expanding anchors in the following:

Structural work
- Rebar / steel reinforcement anchoring in new and refurbishment works
- Threaded rods
- Bolts and special fastening / fixing systems

Metalwork, carpentry
- Handrails, balustrades and supports
- Railings
- Window and door frames

Substrates
- Concrete (cracked and un-cracked)
- Hollow and solid masonry
- Wood
- Natural and reconstituted stone
- Solid rock

CHARACTERISTICS / ADVANTAGES

- Long open time
- Can be used in damp concrete
- High load capacity
- ETA to ETAG 001 for anchoring in cracked concrete
- ETA to ETAG 001 for rebar connections
- ESR to AC308 by ICC-ES, anchoring in cracked concrete for static, wind and earthquake loading
- Seismic tested (C1)
- Suitable for contact with drinking water
- Fire resistant
- Styrene-free
- Good adhesion to the substrate
- Shrinkage-free hardening
- Standard sealant guns can be used (250 ml cartridge)
- Low wastage

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to ETA 14/0157, based on ETAG 001 Part 1 and Part 5 - Bonded injection type anchor for use in cracked and uncracked concrete
- CE Marking and Declaration of Performance to ETA 14/0368, based on ETAG 001 Part 1 and Part 5 - Post installed rebar connections
- Adhesive Anchors for Cracked and Un-cracked Concrete IBC/IRC, Sika AnchorFix®-3001, ICC-ES, Evaluation report No. ESR-3608
- Drinking Water System Components NSF/ANSI 61, Sika AnchorFix®-3001, IAPMO R&T, Certificate No. K-8319
- Fire Testing ISO 834-1, Sika AnchorFix®-3001, CSTB, Test report No. 26054326/B

PRODUCT INFORMATION

Chemical Base	Epoxy	
Packaging	250 ml standard cartridge	12 cartridges per box pallet: 75 boxes
	600 ml side by side cartridge	12 cartridges per box pallet: 36 boxes
Colour	Part A	off-white
	Part B	dark grey / black
	A+B mixed	grey
Shelf Life	24 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +25 °C. Always refer to packaging.	
Density	A+B mixed	~1.49 kg/l

TECHNICAL INFORMATION

Compressive Strength	~85 N/mm² (7 days, +20 °C)		(ASTM D 695)
Modulus of Elasticity in Compression	~5 000 N/mm² (7 days, +20 °C)		(ASTM D 695)
Flexural Strength	~45 N/mm² (7 days, +20 °C)		(ASTM D 790)
Tensile Strength	~23 N/mm² (7 days, +20 °C)		(ASTM D 638)
Modulus of Elasticity in Tension	~5 500 N/mm² (7 days, +20 °C)		(ASTM D 638)
Service Temperature	Long term	-40 °C min. / +40 °C max.	(ETAG 001, Part 5)
	Short term (1–2 hours)	+80 °C	

SYSTEM INFORMATION

System Structure	Ancillary products: ▪ Sika AnchorFix® Static Mixers -Nozzles

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B = 1 : 1 by volume
Layer Thickness	~7 mm max
Sag Flow	Non-sag, including overhead
Product Temperature	10 °C min. / +30 °C max.
Ambient Air Temperature	+5 °C min. / +40 °C max.
Dew Point	Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point.
Substrate Temperature	+5 °C min. / +40 °C max.

Curing Time

Temperature	Open time - T_{gel}	Curing time - T_{cur}
+40 °C	3 minutes	3 hours
+35 °C to +40 °C	4 minutes	4 hours
+30 °C to +35 °C	6 minutes	5 hours
+25 °C to +30 °C	8 minutes	6 hours
+20 °C to +25 °C	11 minutes	7 hours
+15 °C to +20 °C	15 minutes	8 hours
+10 °C to +15°C	20 minutes	12 hours
+5 °C to +10 °C	—*	24 hours

* Minimum cartridge temperature: +10 °C

BASIS OF PRODUCT DATA

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.

FURTHER DOCUMENTS

- For specific information on design refer to: Technical Documentation Sika AnchorFix®-3001 870 43 10
- Sika Method Statement: Sika AnchorFix®
- Sika AnchorFix®: Approvals

LIMITATIONS

- Natural / reconstituted stone and solid rock properties vary particular with regard to strength, composition and porosity. For each application, the suitability of Sika AnchorFix®-3001 must be tested for bond strength, surface staining and discoloration by first applying the product to a sample area before full project application.

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

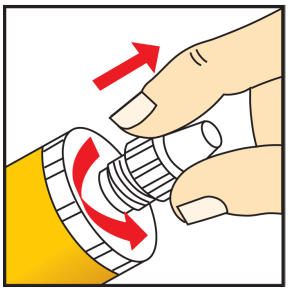
APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

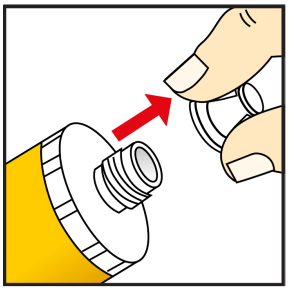
Mortar and concrete must be at the required design strength.
Substrate tensile / compressive strengths (concrete, masonry, natural stone) must be confirmed by testing.
The anchor hole must always be clean, free from oil and grease etc.
Loose particles must be removed from the holes.
Threaded rods and rebar's must be cleaned thoroughly and free from dirt, oil, grease, corrosion products or any other substances and particles which could affect adhesion.

MIXING

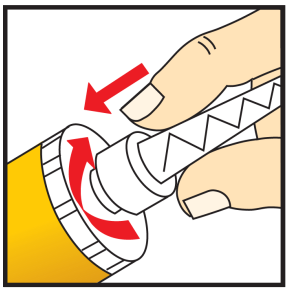
Preparing cartridge: 250 ml



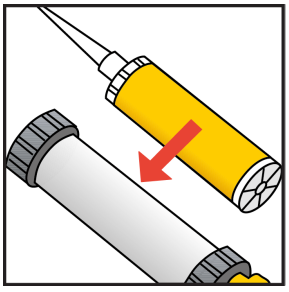
1. Unscrew and remove the cap



2. Pull out the plug

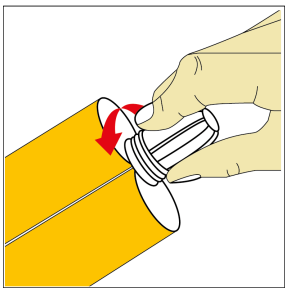


3. Screw on the static mixer

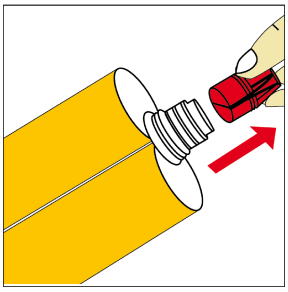


4. Place the cartridge into the application gun ready for use

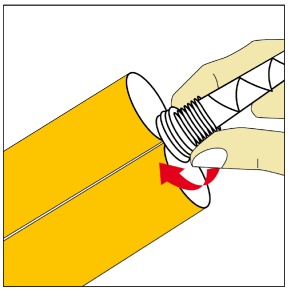
Preparing cartridge: 600 ml



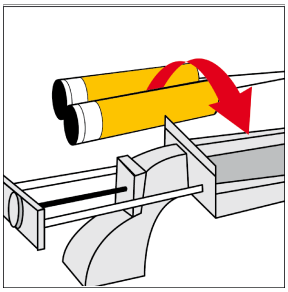
1.Unscrew the cap



2. Pull out the red plug



3. Screw on the static mixer



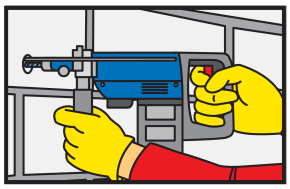
4. Place the cartridge into the application gun ready for use

When the work is interrupted the static mixer nozzle can remain on the cartridge after the gun pressure has been released. If the resin has hardened in the nozzle when work is resumed, a new nozzle must be attached.

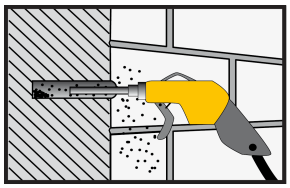
APPLICATION METHOD / TOOLS

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

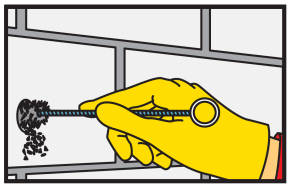
Anchors in solid masonry/concrete



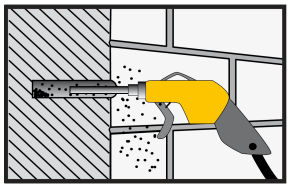
1. Drill hole with an electric drill to the diameter and depth required. Drill hole diameter must be in accordance with anchor size



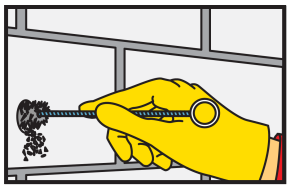
2. The drill hole must be cleaned with oil free compressed air using an air lance, pressure: 6 Bar (90 psi). Start from the bottom of the hole and clean minimum 2x until return air stream is free of dust



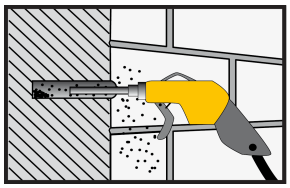
3. The drill hole must be thoroughly cleaned with the special steel brush (at least 2x). The diameter of the brush must be larger than the diameter of the drill hole



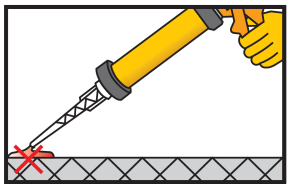
4. The drill hole must be cleaned again as stage 2



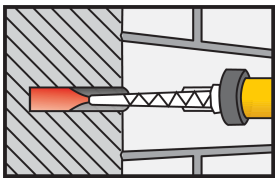
5. The drill hole must be thoroughly cleaned again as stage 3



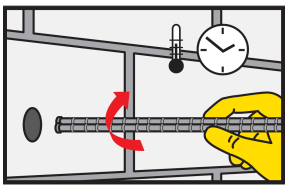
6. The drill hole must be cleaned again as stage 2 & 4



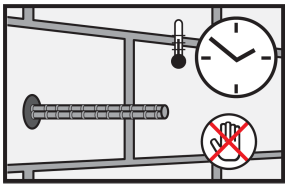
7. Pump gun at least 2x until both parts are extruded as a one consistent colour. Do not use this material. Release the gun pressure and clean the static mixer opening with a cloth



8. Inject the adhesive into the drill hole, starting from the bottom and slowly pull out the static mixer while extruding the resin into the hole. Avoid entrapping air. For deep holes use extension tubing



9. Insert the anchor with a rotary motion into the filled drill hole within the adhesive open time. Some of the adhesive must flow out of the hole



10. During the resin hardening time the anchor must not be moved or loaded

Important Note: Anchors in hollow blocks: Use Sika AnchorFix®-1.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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