BUILDING TRUST

BUILDING PRODUCT INFORMATION 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

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

LIMITATIONS OF USE

A building element used for load bearing, bracing, structural support or other applications as defined in the NZBC, must be fastened in accordance with the specification / instructions from that elements manufacturer

When this product is used as an adhesive to bond embedded items, anchors and secondary structural elements into (cracked, or uncracked) concrete, as defined in Clause C17 of NZS: 3101 Part2: 2006, the specific anchoring / loading requirements must be calculated by a qualified Structural Engineer.

FEATURES

- 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

SUSTAINABILITY

- 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 / CERTIFICATES

- 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

Product identifier	Sika AnchorFix®-3001	
Place of manufacture	Overseas	
Composition	Epoxy	
Packaging	250 ml standard cartridge	12 cartridges per box pallet: 75 boxes
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.	
Colour	Part A	off-white
	Part B	dark grey / black
	A+B mixed	grey
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.
	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

MANUFACTURER AND IMPORTER INFORMATION

Manufacturer information	Address	Sika Supply Centre AG Industriestrasse 26 6060, Sarnen Switzerland
Importer information	Address	Sika (NZ) Limited 85-91 Patiki Road Avondale, Auckland 1026 New Zealand
	Phone number	0800 745 269
	Website	https://nzl.sika.com/
	Email address	info@nz.sika.com
	NZBN	9429000018791

BUILDING CODE INFORMATION

Building Code clauses	B1 Structure: Performance Clauses B1.3.1, B1.3.2, B1.3.3 (b, f, g, h) B1.3.4 B2 Durability: Performance clause B2.3.1-(a) not less than 50 years F2 Hazardous Building Materials: Performance clause F2.3.1
Building Code compliance statements	Performance B1.3.1, B1.3.2, 1.3.3 (b,f,g,h) B1.3.4: This Sika AnchorFix product has a certified European Technical Assessment: Product Area Code 33, and it has been seismic tested for C1 and C2 classifications. It has been evaluated in accordance with B1/VM1. When used as an adhesive to bond embedded items, anchors and secondary structural elements into (cracked, or uncracked) concrete, as defined in Clause C17 of NZS: 3101 Part2: 2006, and the specific anchoring / loading requirements have been calculated by a suitably qualified Structural Engineer, it contributes to meeting the preceding B1 Structure performance clauses Performance B2.3.1 (a) 50 years: This product has been evaluated in accordance with B2/VM1. It meets this durability requirement and will remain serviceable for 50 years, or more, when installed and maintained in accordance with the relevant Sika technical literature. nzl.sika.com. According to Sika's "Service Improvement" records, maintained within its ISO9001:2015 Quality Management System, this product has performed successfully since it was introduced in 2018. Performance F2.3.1: This product meets this requirement when used and applied in accordance with Sika's installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Sika Product Technical Data sheet and product Safety Data Sheet nzl.sika.com for further information if required

BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTATION

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

IMPORTANT CONSIDERATIONS

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

DESIGN REQUIREMENTS

For assistance with the design requirements needed for embedded structural anchoring refer to the relevant Sika "Technical Documentation" for this product which is located at nzl.sika.com

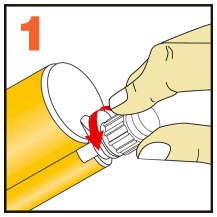
SUBSTRATE QUALITY

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.

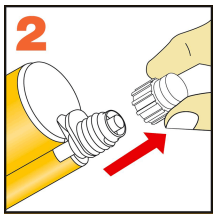
MIXING

PREPARING THE CARTRIDGE

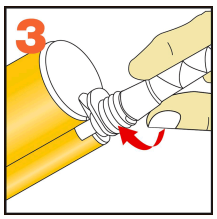
1. Unscrew the cap.



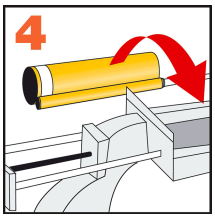
2. Remove the cap.



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

Note

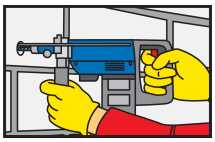
Test if the Product is suitable for the substrate

Due to the variety of possible substrates, the Product's suitability for the substrate must be confirmed before application, particularly in terms of desired bond strength, composition, porosity, potential surface staining or discolouration.

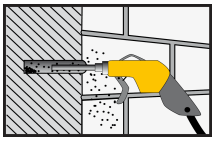
a) Test the Product's suitability in a sample area.

ANCHORS IN SOLID MASONRY OR CONCRETE

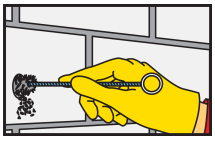
1. Drill hole with an electric drill to the diameter and depth required. Drill hole diameter must be in accordance with anchor size



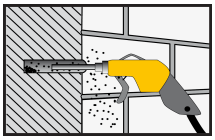
2. The drill hole must be cleaned with oil free compressed air using an air lance, pressure: 6 Bar (90 psi). Start from the bottom of the hole and clean minimum 2 x until return air stream is free of dust



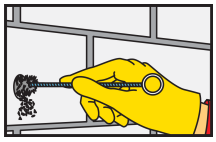
3. The drill hole must be thoroughly cleaned with the special steel brush (brush at least 2x). The diameter of the brush must be larger than the diameter of the drill hole



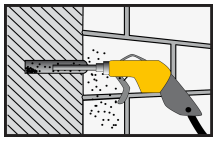
4. The drill hole must be cleaned again as stage 2



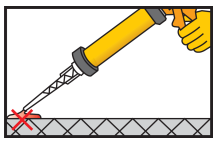
5. The drill hole must be thoroughly cleaned again as stage 3



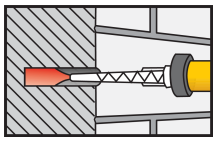
6. The drill hole must be cleaned again as stage 2 & 4



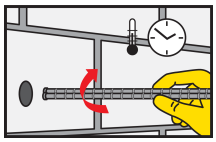
7. Pump gun at least 2 x until both parts are extruded as a one consistant colour. Do not use this material. Release the gun pressure and clean the static mixer opening with a cloth



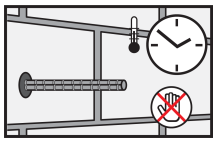
8. Inject the adhesive into the drill hole, starting from the bottom and slowly pull out the static mixer while extruding the resin into the hole. Avoid entrapping air. For deep holes use extension tubing



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 EQUIPMENT

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

MAINTENANCE REQUIREMENTS

There are no maintenance requirements for this Sika product

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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.

The building product/building product line is not subject to warning or ban under section 26 of the Building Act 2004.

Sika (NZ) Limited
85-91 Patiki Road
Avondale, Auckland 1026
New Zealand
0800 745 269
www.sika.co.nz