

Sika AnchorFix®-3

2-part epoxy anchoring adhesive

Product Description

Solvent-free, thixotropic, two part, epoxy resin-based anchoring adhesive.

Uses

For the fixing of non-expanding anchors in the following:

Structural work:

- Rebar / steel reinforcement anchoring in new and refurbishment works
- Anchoring of dowels in precast elements

Mechanical and electrical services installation (heating and ventilating, sanitary):

- Anchoring of supports for ducts and equipment

Metalwork, carpentry:

- Fixing of handrails, balustrades and supports
- Fixing of railings
- Fixing of window and door frames

In the following substrates:

- Concrete
- Hard natural stone
- Solid rock
- Hollow and solid masonry
- Steel.
- Wood

Characteristics / Advantages

- Fast curing
- Can be used on damp concrete
- High load capacity
- Non-sag, even overhead
- Styrene-free
- Excellent adhesion to the substrate
- Shrinkage-free hardening

Tests

Approval / Standards

400 ml:
SOCOTEC No. 3014.
Standard NF P 18-822 for anchorings category 6.

250 ml:
None.

Construction



Product Data

Form

Colours	Part A:	white
	Part B:	grey
	Part A+B mixed:	grey

Packaging	400 ml side by side cartridge, 12 per box. Pallet: 50 boxes with 12 cartridges.
	250 ml cartridge, 12 per box. Pallet: 60 boxes with 12 cartridges.



Storage

Storage Conditions / Shelf-Life	18 months from date of production of stored properly in original unopened, sealed and undamaged packaging in cool and dry conditions, away from heat sources at temperatures between +10°C and +30°C. Protect from direct sunshine. All Sika AnchorFix®-3 cartridges have the expiry date printed on the label.
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Technical Data

Density	1.5 kg/l (part A+B mixed)
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Curing Speed

Substrate temperature	Open Time T _{gel} 	Curing Time T _{cur} 
+2°C	25 minutes	300 minutes
+10°C	10 minutes	180 minutes
+20°C	5 minutes	120 minutes
+30°C	3 minutes	90 minutes
+40°C	2 minutes	80 minutes

Min. cartridge temperature +10°C.

Sag Flow	Non-sag, even overhead.
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Layer Thickness	30 mm max.
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Mechanical / Physical Properties

Compressive Strength 60 N/mm² (after 24 hours)

Flexural Strength 12 N/mm² (after 24 hours)

Bond Strength

Time	Substrate	Bond strength
After 24 hours	Dry concrete	4 N/mm ²
After 24 hours	Damp concrete	2 N/mm ²
After 24 hours	Steel sandblasted	2 N/mm ²
After 24 hours	Brick dry	Brick failure

Pull out Strength

400 ml:

Pull-out tests (to standard NF P 18-822):

Anchoring of rebars in slabs:

Conditions:	
Steel quality	B500B
Rebar diameter	12 mm
Drill hole diameter	22 mm
Anchoring depths	120 mm

Test result: Ultimate load 66 kN, slippage < 0.6 mm

Pull-out tests (in function of time and temperature):

Conditions:	
Steel quality	B500B
Rebar diameter	12 mm
Drill hole diameter	22 mm
Anchoring depths	120 mm

Test results:

	Ambient and substrate temperature									
	+2°C		+10°C		+20°C			+32°C		
Curing time	3 hrs	5 hrs	3 hrs	5 hrs	1 hrs	2 hrs	3 hrs	24 hrs	1 hrs	
Ultimate load	16 kN	40 kN	46 kN	58 kN	30 kN	45 kN	52 kN	66 kN*	32 kN	

*Maximum load of the testing machine

250 ml:
None

System Information

Application Details

Consumption / Dosage Material consumption per anchor in ml

Anchor Ø mm	Drill Ø mm		Drill hole depth in mm													
	min	max	100	120	140	160	180	200	220	240	260	280	300	400	500	600
8	10		3	4	4	5	6	6	7	7	8	8	9	12	15	17
		18	21	25	29	33	37	41	45	50	54	58	62	82	103	123
10	12		4	5	5	6	7	7	8	9	9	10	11	14	18	21
		20	24	29	33	38	43	48	52	57	62	66	71	95	118	142
12	14		5	5	6	7	8	9	10	10	11	12	13	17	21	25
		22	27	33	38	43	49	54	59	65	70	75	81	107	134	161
14	18		11	13	15	17	19	21	23	25	27	29	31	41	51	61
		24	30	36	42	48	54	60	66	72	78	84	90	120	150	180
16	20		12	14	16	19	21	23	25	28	30	32	34	46	57	68
		26	33	40	47	53	60	66	73	80	86	93	99	132	165	198
20	25		18	22	25	29	32	36	39	43	46	50	54	71	89	107
		30	40	48	56	63	71	79	87	95	103	111	118	158	197	236

The indicated filling quantities are calculated without wastage. Wastage 10 - 50%.

The filled quantity can be monitored during injection with the help of the scale on the cartridge label.

Substrate Quality

Mortar and concrete must be older than 28 days.

Substrate strength (concrete, masonry, natural stone) must be verified.

Pull-out tests must be carried out if the substrate strength is unknown.

Application Conditions / Limitations

Substrate Temperature

+2°C min. / +40°C max.

Sika AnchorFix®-3 must be at a temperature of between +10°C and +30°C for application.

Ambient Temperature

+2°C min. / +40°C max.

Sika AnchorFix®-3 must be at a temperature of between +10°C and +30°C for application.

Substrate Moisture Content

The drill hole can be damp but not wet. There should be no standing water and no presence of water under pressure during curing.









Application Instructions

Mixing

Part A : part B = 1 : 1 by volume

Mixing Tools

Getting the cartridge ready:

250 ml cartridge	400 ml cartridge	
		Unscrew and remove the cap
		Pull out the plug
		Screw on the static mixer
		Place the cartridge into the gun and start application

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

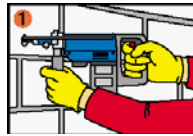
When storing an opened cartridge, unscrew and remove the nozzle, clean the cartridge opening with a dry cloth and screw the cap back on.

Application Method / Tools

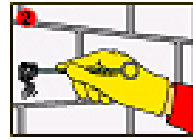
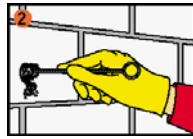
General Remarks:

250 ml cartridge

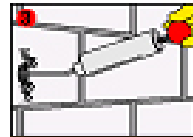
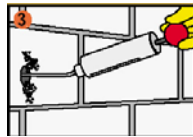
400 ml cartridge



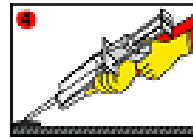
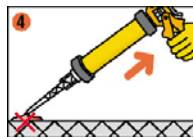
Drill the hole with an electric drill. Diameter and depth of the hole must fit the element to be anchored.



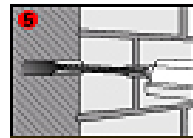
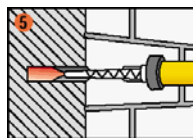
The drill hole must be thoroughly cleaned with a round brush. (brush at least 3x) The diameter of the brush must be larger than the diameter of the drill hole.



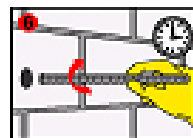
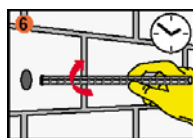
The drill hole must be cleaned after each cleaning step with a blowpump or by compressed air, starting from the bottom of the hole. Important: use oil-free compressors!



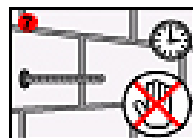
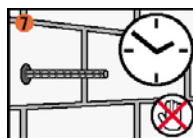
Pump approx. twice until both parts come out uniformly. Do not use this material. Release the gun pressure and clean the cartridge opening with a cloth.



Inject the adhesive into the hole, starting from the bottom, while slowly drawing back the static mixer. In any case avoid entrapping air. For deep holes extension tubing can be used.

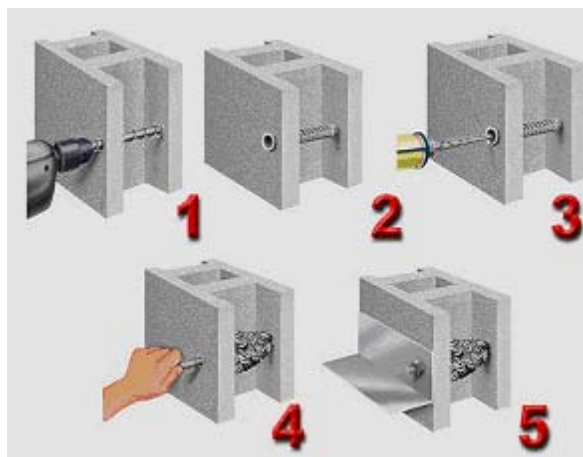


Insert the anchor with a rotary motion into the filled drill hole. Some adhesive must come out of the hole. Important! The anchor must be placed within the open time.



During the hardening time the anchor must not be moved or loaded. Wash tools immediately with Sika® Colma Cleaner. Wash hands and skin thoroughly with warm soap water.

Anchors in hollow blocks:



To fix anchors into hollow materials (bricks or blocks) perforated sleeves must be used.

Note: with hollow material do not use rotary hammer drills.

Cleaning of Tools

Clean all tools and application equipment with Sika® Colma Cleaner immediately after use. Hardened / curded material can only be mechanically removed.

Value Base

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 on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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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