

# Sika AnchorFix<sup>®</sup>-3

## Epoxy Anchoring Mortar

Construction

<b>Description</b>	Sika AnchorFix-3 is a solvent-free, thixotropic, two component, epoxy resin-based anchoring mortar for difficult substrates.
<b>Uses</b>	<p>Sika AnchorFix-3 can be used for setting non-expanding anchors for the following:</p> <p><i>Structural work</i></p> <ul style="list-style-type: none"> <li>• Reinforcement bar anchoring in new structural work and refurbishment.</li> <li>• Anchoring of dowels in precast elements.</li> </ul> <p><i>Installations</i></p> <ul style="list-style-type: none"> <li>• Anchoring of supports</li> </ul> <p><i>Metalwork, carpentry</i></p> <ul style="list-style-type: none"> <li>• Fastening of handrails, balustrades and supports</li> <li>• Fixing of railings</li> <li>• Fixing of window and door frames</li> </ul> <p><i>It can be used to install these fixtures into:</i></p> <ul style="list-style-type: none"> <li>• Concrete</li> <li>• Hard natural stone</li> <li>• Solid rock</li> <li>• Hollow and solid masonry</li> <li>• Steel</li> <li>• Wood</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Can be used on moist concrete</li> <li>• Excellent adhesion to the substrate</li> <li>• Fast curing</li> <li>• Non-sag, also overhead</li> <li>• High load capacity</li> <li>• Shrinkage-free hardening</li> <li>• Styrene-free</li> </ul>
<b>Storage &amp; Shelf Life</b>	Minimum shelf life is approximately nine (9) months. Store under controlled conditions in original unopened containers. Store between 10°C and 30°C and out of direct sunlight.
<b>Tests</b>	<p>SOCOTEC No. 3014</p> <p>Standard NF P 18-822 for anchorings category 6</p>
<b>Technical Data (Typical)</b>	
<b>Form</b>	Creamy epoxy paste when mixed
<b>Colour</b>	<p>Comp A: White</p> <p>Comp B: Grey</p> <p>Comp A+B mixed Grey</p>
<b>Application Temperature</b>	Between 5°C and 30°C (substrate and ambient)
<b>Density</b>	1.5 kg/l (Comp. A+B mixed)

**Curing Speed**

Substrate Temperature	Open Time T <sub>gel</sub>	Curing Time T <sub>cur</sub>
+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

**Sag Flow** Non-sag (overhead & vertical)

**Layer Thickness** Max. layer thickness: 30 mm

**Compressive Strength** 60 MPa (after 24 hours)

**Flexural Tensile Strength** 12 MPa (after 24 hours)

**Bond Strength**

Time	Substrate	Bond Strength
After 24 hours	Dry concrete	4MPa
After 24 hours	Moist concrete	2MPa
After 24 hours	Steel sandblasted	2 MPa
After 24 hours	Brick dry	Brick failure

**Packaging** 250 ml cartridge

**Load Capacity**

*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

**Consumption/Dosage**

Material consumption per anchor in ml.

Anchor ø	Drill hole ø		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 filling quantities are calculated without wastage. Wastage between 10 - 50 %

**Substrate Quality**

Mortar and concrete must be older than 28 days.

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

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

**Application Conditions/Limits****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 Humidity**

The drill hole can be humid but not wet. No presence of water under pressure during curing.

**Application Instructions****Mixing**

Comp. A : Comp. B = 1 : 1 by volume

**Mixing Tools**

Getting the cartridge ready.

1. Unscrew and remove the cap
2. Pull out the red plug
3. Screw on the static mixer
4. Place the cartridge into the gun and start application

When the 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 away, unscrew and remove the nozzle, clean the cartridge opening with a dry cloth and screw the cap on.

**Application Method/Tools**

- Drill the hole with a drilling machine. 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 3 times). 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.*

**Application Method/Tools  
(Continued)**

- Pump the material out of the cartridge approx. twice until both components 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. 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 hardening time the anchor may absolutely not be moved or loaded. Wash tools immediately with 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.

**Cleaning of Tools**

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

**Health and Safety Information****Protective Measures**

During application in closed rooms, pits and shafts, etc., sufficient ventilation must be provided. Keep away from open flames including welding.

To avoid rare allergic reactions, we recommend the use of butyl rubber/nitril rubber gloves. Changed soiled work clothes and wash hands before breaks and after finishing work.

Local regulations as well as health and safety advice on packaging labels must be observed.

**Important Notes**

Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Detailed health and safety information as well as detailed precautionary measures eg. physical, toxicological and ecological data can be obtained from the safety data sheet.

**Important Notification**

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

