


# Sika AnchorFix® -3+

## High-performance, 2-part epoxy anchoring adhesive

<b>Product Description</b>	Solvent-free, thixotropic, two part, epoxy resin-based, high performance anchoring adhesive.
<b>Uses</b>	<p>For the fixing of non-expanding anchors in the following:</p> <p><i>Structural work:</i></p> <ul style="list-style-type: none"><li>• Rebar / steel reinforcement anchoring in new and refurbishment works</li><li>• Threaded rods</li><li>• Bolts and special fastening / fixing systems</li></ul> <p><i>Mechanical and electrical services installation (heating and ventilating, sanitary, etc)</i></p> <ul style="list-style-type: none"><li>• Anchoring of supports for ducting and equipment</li></ul> <p><i>Metalwork, carpentry:</i></p> <ul style="list-style-type: none"><li>• Fixing of handrails, balustrades and supports</li><li>• Fixing of railings</li><li>• Fixing of window and door frames</li></ul> <p><i>In the following substrates:</i></p> <ul style="list-style-type: none"><li>• Concrete</li><li>• Hard natural and reconstituted stone</li><li>• Solid rock</li><li>• Hollow and solid masonry</li><li>• Steel</li><li>• Wood</li></ul>
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"><li>• Long open time</li><li>• Can be used in damp concrete</li><li>• High load capacity</li><li>• Non-sag, even overhead</li><li>• Styrene-free</li><li>• ETA Approval available</li><li>• Shrinkage-free hardening</li><li>• Standard guns can be used (with the 250ml cartridge)</li><li>• Low odour</li><li>• Low wastage</li></ul>
<b>Tests Approval / Standards</b>	<p>Approvals for anchors:</p> <div data-bbox="616 1617 948 1736">The image shows two logos side-by-side. On the left is the ETA logo, which consists of a blue circle with twelve yellow stars around the perimeter and the letters 'ETA' in white in the center. On the right is the CE mark, which consists of the letters 'C' and 'E' in a stylized, bold font, enclosed in a square border.</div> <p>European Technical Approval Guideline ETAG 001 Part 5 Option 7 Galvanised, hot-dip galvanised &amp; stainless steel anchors M8 to M24 EC Cert. ETA-14 / 0125</p>

Construction



## Product Data

### Colours

Part A: clear / translucent  
Part B: grey  
Part A+B mixed: light grey

### Packaging

250 ml standard cartridge, 12 per box.  
Pallet: 60 boxes with 12 cartridges.

### Storage Conditions / Shelf-Life

Twelve (12) months from date of production if stored properly in original unopened, sealed and undamaged packaging in cool and dry conditions at temperatures between +5°C and +30°C. Protect from direct sunlight.

All Sika AnchorFix-3+ cartridges have the expiry date printed on the label.

## Technical Data

### Density

Part A: 1.18 kg/l  
Part B: 1.71 kg/l

1.45 kg/l (part A+B mixed)

### Curing Speed

Temperature	Open Time $T_{gel}$	<sup>1)</sup> Curing Time $T_{cur}$
+35°C - +40°C	10 minutes	7 hours
+20°C - +35°C	15 minutes	14 hours
+10°C - +20°C	35 minutes	30 hours
+5°C - +10°C	75 minutes	45 hours

<sup>1)</sup>In wet concrete the curing time must be doubled\*

Min. cartridge temperature = +5°C

### Sag Flow

Non-sag, even overhead.

### Layer Thickness

5 mm max.

## Mechanical / Physical Properties

### Compressive Strength

(According to ASTM D695-96)

Curing time	+5°C	+23°C	+40°C
16 hours	~11 N/mm <sup>2</sup>	~94 N/mm <sup>2</sup>	~108 N/mm <sup>2</sup>
1 day	~17 N/mm <sup>2</sup>	~104 N/mm <sup>2</sup>	~115 N/mm <sup>2</sup>
3 days	~ 86 N/mm <sup>2</sup>	~112 N/mm <sup>2</sup>	~123 N/mm <sup>2</sup>
7 days	~ 89 N/mm <sup>2</sup>	~114 N/mm <sup>2</sup>	~127 N/mm <sup>2</sup>

+/- 5 N/mm<sup>2</sup>

### Pull out Strength

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

Anchoring of rebar in slabs:

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

Test result: Ultimate load >70 kN\*, slippage < 0.6 mm

\*Maximum load of the testing machine

### Thermal Resistance

-40°C to +45°C  
+45°C long term

## Application Details

### Consumption / Dosage

Material consumption per anchor in ml

Thread Ø	Hole Ø	Theoretical volume [ml] @ a certain hole depth [mm]																	
		80	90	110	120	130	140	160	170	180	200	210	220	240	260	280	300	350	400
M8	10	3.4	3.8	4.6	5.0	5.4	5.9	6.7	7.1	7.5	8.4	8.8	9.2	10.1	10.9	11.7	12.6	14.7	16.8
M10	12	4.4	5.0	6.1	6.6	7.2	7.7	8.8	9.4	9.9	11.0	11.6	12.1	13.2	14.3	15.4	16.5	19.3	22.0
M12	14	5.6	6.3	7.7	8.4	9.1	9.8	11.2	11.8	12.5	13.9	14.6	15.3	16.7	18.1	19.5	20.9	24.4	27.9
M14	16	6.9	7.7	9.5	10.3	11.2	12.0	13.8	14.6	15.5	17.2	18.1	18.9	20.6	22.4	24.1	25.8	30.1	34.4
M14	18	11.2	12.6	15.4	16.8	18.2	19.6	22.4	23.8	25.2	28.0	29.4	30.8	33.6	36.4	39.2	42.0	49.0	56.0
M16	18	7.8	8.8	10.8	11.8	12.7	13.7	15.7	16.7	17.6	19.6	20.6	21.6	23.5	25.5	27.4	29.4	34.3	39.2
M16	20	12.6	14.1	17.3	18.8	20.4	22.0	25.1	26.7	28.3	31.4	33.0	34.5	37.7	40.8	44.0	47.1	55.0	62.8
M20	22	10.8	12.2	14.9	16.2	17.6	18.9	21.6	23.0	24.3	27.0	28.4	29.7	32.4	35.1	37.8	40.5	47.3	54.0
M20	24	16.6	18.6	22.8	24.8	26.9	29.0	33.1	35.2	37.3	41.4	43.5	45.5	49.7	53.8	58.0	62.1	72.5	82.8
M20	25	19.7	22.1	27.1	29.5	32.0	34.4	39.4	41.8	44.3	49.2	51.7	54.1	59.0	64.0	68.9	73.8	86.1	98.4
M24	26	14.2	16.0	19.6	21.4	23.1	24.9	28.5	30.3	32.0	35.6	37.4	39.2	42.7	46.3	49.8	53.4	62.3	71.2
M27	30	19.4	21.9	26.7	29.2	31.6	34.0	38.9	41.3	43.7	48.6	51.0	53.5	58.3	63.2	68.0	72.9	85.1	97.2

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

### 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.
- The anchor hole must always be clean, dry, free from oil and grease, etc.
- Loose particles must be removed from the holes.
- Threaded rods and rebars have to be cleaned thoroughly from any oil, grease or any other substances and particles such as dirt, etc.

### Application Conditions / Limitations

**Substrate Temperature** 0°C min. / +40°C max.

**Ambient Temperature** 0°C min. / +40°C max.

**Material Temperature** Sika AnchorFix-3+ must be used at a temperature of between +5°C and +30°C.

**Dew Point** Substrate temperature during application must be at least 3°C above dew point to avoid condensation.

### Application Instructions

**Mixing** Part A : part B = 1 : 1 by volume

**Mixing Tools** Getting the cartridge ready:



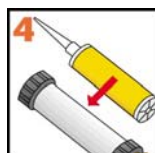
Unscrew and remove the cap



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.

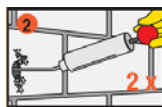
**Application Method / Tools**

Anchors in solid masonry/concrete:

**Important: For anchor in hollow blocks use Sika AnchorFix-1**



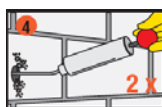
Drilling of hole with an electric drill to the diameter and depth required. Drill hole diameter must be in accordance with anchor size.



The drill hole must be cleaned (at least twice) with a blow pump or by compressed air, starting from the bottom of the hole. Oil-free compressors shall be used



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

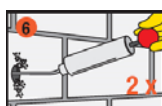


The drill hole must then be cleaned (at least twice) again with a blow pump or by compressed air, starting from the bottom of the hole.

Oil-free compressors shall be used

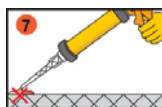


The drill hole must be thoroughly cleaned with the special steel brush again (brush at least twice again). The diameter of the brush must be larger than the diameter of the drill hole.

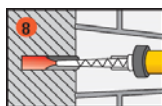


The drill hole must then be finally cleaned (at least twice) yet again with a blow pump or by compressed air, starting from the bottom of the hole.

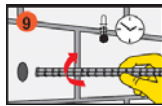
Oil-free compressors shall be used



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.

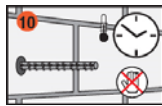


Inject the adhesive into the hole, starting from the bottom, while slowly drawing back the static mixer. In any case avoid entrapping air. For deep holes extension tubing can be used.



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 resin hardening time the anchor must not be moved or loaded. Wash tools immediately with Sika Thinner C. Wash hands and skin thoroughly with warm soap water.

**Cleaning of Tools**

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

**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.

**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.

**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 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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