

# METHOD STATEMENT Sika AnchorFix®

11 2025 / 01 / SIKA LIMITED / ROB DOHERTY

**CHEMICAL ANCHORING** 



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# 1 SYSTEM DESCRIPTION

Sika AnchorFix® products are used for:

For the 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:

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

# In the following substrates:

- Concrete (cracked and un-cracked)
- Hard natural and reconstituted stone
- Solid rock
- Hollow and solid masonry
- Wood

#### 1.1 REFERENCES

To ensure the correct application of Sika AnchorFix\*, please refer also to the following documents:

- Sika® PDS (Product Data Sheet) of the Chemical Anchoring Product
- Sika® PDS's (Product Data Sheets) of all Accessories
- Sika® SDS's (Safety Data Sheets) of the Chemical Anchoring Product
- Sika® AnchorFix Technical Documentations
- All ETA's (European Technical Assessments) for the relevant products
- DoP's (Declarations of Performance) and CE Mark Certificates based on ETA's



# 1.2 LIMITATIONS

According to the Product Data Sheets, certain limitations are as follows:

- Layer Thickness (minimum and maximum)
- Substrate temperature
- Ambient temperature
- Material temperature
- Material used (steel bars, etc.)
- Substrate moisture content
- Dew point conditions

Please refer to the PDS (Product Data Sheet) to confirm the specific details and requirements for each product.

# 2 PRODUCTS

This Method Statement is valid for the following products:

- Sika AnchorFix®-1
- Sika AnchorFix®-2+
- Sika AnchorFix®-2020
- Sika AnchorFix®-3030



## 3 SAFETY MEASURES ON SITE

#### 3.1 PERSONAL PROTECTION

The following symbols are typical of the internationally required labelling for chemical anchoring products. In accordance with these, the products should be stored and applied according to the appropriate local regulations. Please also observe any other relevant local regulations (refer to the relevant PDS and SDS's).



The following protective equipment is essential for anyone working with chemical anchoring products and these instructions must be strictly adhered to:



In addition to protective clothing, it is also recommended to use a barrier cream on skin. The use of a barrier cream is more useful and effective than often reputed; they are inexpensive, convenient, and protect well if they are not frequently flushed with solvents. However, barrier creams are only a supplement to, and not a replacement for, protective gloves, so always wear gloves. Always ensure there is no contamination inside gloves before reusing them.

Ensure sufficient ventilation during application in closed or confined spaces.

If any chemical anchoring component gets on clothing, remove the garment at once. The contact of resin-saturated fabric on the skin can cause serious chemical burns. Wash your exposed skin occasionally during the workday and immediately if any chemical component gets on it. Avoid using solvents since they can help chemical material penetrate into the skin, and solvents themselves are aggressive and harmful to the skin. If water is no longer available at any time, clean the contamination with sand instead, it works well. Certain hand cleaners also work without harmful effects. Citrus skin cleaners, for example, are effective and mild soap and water takes time, but also eventually works for small areas.

Avoiding skin contact by keeping tools and equipment clean is one of the best ways to protect oneself.



Despite safety precautions, with any instances of skin contact, rinse immediately with clean water and use warm water and soap to thoroughly clean the skin.

A good skin cleaner:



Sika® Cleaning Wipes

No chemical anchoring applications should ever proceed without sufficient water being adjacent and available for eye washing. If adequate clean water is not provided then the project should not commence, no matter what the urgency. Numerous workers and observers have suffered injury due to resin entering their eyes when there was no water available to clean them. If a professional eyewash kit is not available, then at least one litre of clean water must be present. The water can be in a pail, plastic jug or via a hosepipe, but it must always be directly adjacent to the operation (i.e. a water source on the opposite side of the building or site is not good enough). Safety glasses or other eye protection obviously help those doing the work, but they can also create a false sense of security. Do not take risks with health!



Professional eyewash kit available

In the event of any spillage or contact into the eyes, always seek medical advice immediately after rinsing and cleaning the eyes with the clean water



Depending on local regulations, respiratory masks may be required. Please observe all relevant local regulations.



Breathing protection required

The following equipment is also generally recommended on construction sites:



Wear protective overalls



Wear hard hats



Wear safety shoes with steel toe caps



Wear ear protection.

For use of drilling

equipment

→ please refer to the

Manufacturer's advice

Please refer to the local country regulations and the specific construction site requirements.

## Disposal:

Brush away and remove any excess material into appropriate containers for disposal before it has hardened.

Hardened products can be disposed of with other combustible waste in a waste incineration plant.

In no circumstances, burn the cured product in an open fire due to the potentially dangerous gases which can be released.

Uncured products must be disposed of as hazardous waste. It is forbidden to mix it with conventional waste.

Always dispose of excess or waste materials in accordance with local regulations.

# **Cleaning of Tools:**

Uncured material can be removed with Sika® Thinner C.

Cured material can only be removed mechanically (or with heat).



# 4 APPLICATION

#### 4.1 SURFACE PREPARATION

## Requirements for the substrate:

- Weak concrete must be removed, and surface defects such as blowholes and voids must be fully exposed.
- Mortar and concrete must be older than 28 days (dependent on minimum strength requirements).
- The maximum substrate moisture content depends on the product. Please refer to the Product Data Sheet of each product to check whether the product is suitable for the particular substrate.
- Confirm the substrate strength (concrete, masonry, natural stone, etc.). Natural stone and rock may
  vary greatly, with regard to strength, composition and porosity. Therefore, for each application the
  suitability of the chemical anchoring product must be tested by first applying the Product only to a
  sample area. Check the pull-out strength in these substrates.
- The substrate must be sound, clean and free from contaminants such as dirt, oil, grease, rust, ice, existing surface treatments and coatings, etc.
- All loose particles must be removed.
- Beware of staining, especially in substrates like hard natural stone and solid rock; these substrates may vary greatly, in particular composition and porosity. Therefore, for each application the suitability of the chemical anchoring product must be tested by first applying the product only to a sample area. Check in particular for surface staining and discolouration.



If in any doubt, test first and confirm with testing equipment, as shown on the left.

Equipment: Enerpac or similar.



# 4.2 APPLICATION IN CONCRETE AND SOLID MASONRY

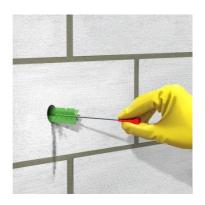


Drill hole with an electric drill to the diameter and depth required.

Drill hole diameter must be in accordance with anchor size.



The drill hole must be cleaned with a blow pump or by compressed air, starting from the bottom of the hole (and at least twice). Important: only use oil-free compressors!

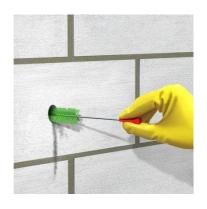


The drill hole must be thoroughly cleaned with the special steel brush (brush at least twice). The diameter of the brush must be larger than the diameter of the drill hole.



The drill hole must be cleaned again with a blow pump or by compressed air, starting from the bottom of the hole (at least twice). Important: only use oil-free compressors!





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



Again, the drill hole must be cleaned with a blow pump or by compressed air, starting from the bottom of the hole (at least twice). Important: only use oil-free compressors!



Pump approximately twice until both components are extruded uniformly. Do not use this material and discard accordingly. 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. Always avoid entrapping air. For deep holes, extension tubing can be used.





Insert the anchor with a rotary motion into the filled drill hole.

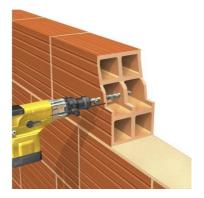
Some adhesive must be extruded from the hole.

Important: the anchor must be placed within the stated 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.

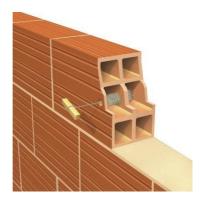
## 4.3 APPLICATION IN HOLLOW MASONRY



Drill hole with an electric drill to the diameter and depth required.

Drill hole diameter must be in accordance with anchor and perforated sleeve size.

NOTE: with hollow materials, do NOT use rotary hammer drills!

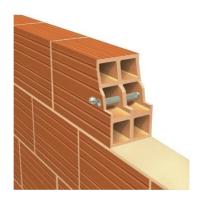


The drill hole must be thoroughly cleaned with a round brush (brush at least once). The diameter of the brush must be larger than the diameter of the drill hole.



The drill hole must be cleaned after each cleaning step with a blow pump or by compressed air, starting from the bottom of the hole (pump at least once).

Important: use only oil-free compressors!



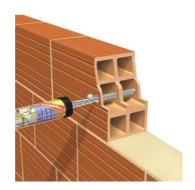
Insert perforated sieve sleeves completely into the drill hole with the cap open.



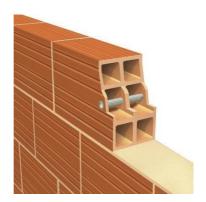


Pump approximately twice until both parts come out uniformly.

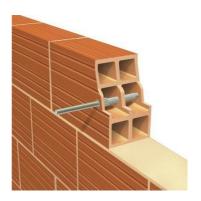
Do not use this material and discard accordingly. Release the gun pressure and clean the cartridge opening with a cloth.



Inject the adhesive into the perforated sleeve, starting from the bottom, while slowly drawing back the static mixer. Always avoid entrapping air.



Close the cap of the perforated sieve sleeve to prevent the loss of resin when inserting the steel rod.



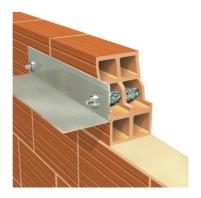
Insert the anchor with a rotary motion into the filled perforated sleeve. Use the correct steel rod size.

Important: the anchor must be placed within the stated open time.





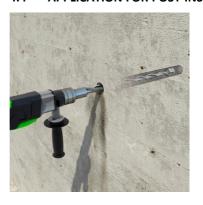
During the resin hardening time, the anchor must not be moved or loaded. Wash tools immediately with Sika® Thinner C. Wash hands and skin thoroughly with warm soap water.



After the hardening time, the load can be applied.



#### 4.4 APPLICATION FOR POST INSTALLED REBARS



Drill 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 with compressed air, using an air lance, starting from the bottom of the hole (at least twice) until return air stream is free of noticeable dust.

Only oil-free compressors shall be used; minimum pressure: 6 Bar (90 psi).



The drill hole must be thoroughly cleaned with the special steel brush (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 again by compressed air, using an air lance, starting from the bottom of the hole (at least twice again) until return air stream is free of noticeable dust.

Only oil-free compressors shall be used, minimum pressure: 6 Bar (90 psi).





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 yet again by compressed air, using an air lance, starting from the bottom of the hole (at least twice) until return air stream is free of noticeable dust.

Only oil-free compressors shall be used, minimum pressure: 6 Bar (90 psi).

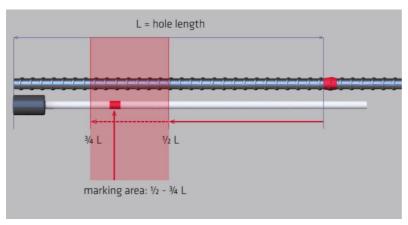


Use insulation tape, masking tape, a permanent marker or similar, to mark the rebar at the correct insertion depth.



Insert the rebar into the drill hole and mark the depth of the drill hole on the rebar with tape, marker, or other suitable means.





Mark the extension tube (with the resin stopper attached at the end) also with tape, marker, or similar; ½ to ¾ of the depth of the entire drill hole.



Pump approximately twice until both parts come out uniformly. Do not use this material and discard accordingly. 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. Always avoid entrapping air. For deep holes, extension tubing shall be used.

For larger hole diameters, the resin stoppers must be used to avoid air entrapment and air voids.

Pull the cartridge with the extension tube and the resin stopper attached back until the marking is visible. This ensures the drill hole is filled with a sufficient amount of resin.



Insert the anchor with a rotary motion into the filled drill hole. Some adhesive must be extruded from the hole. The rotary motion helps to distribute the material evenly around the rebar.

Important: the anchor must be placed within the stated open time.





Remove excess material (e.g. with a spatula, filling knife or cloth).



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 soap and warm water.

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# 4.5 REMOVAL OF CURED / HARDENED MATERIAL

Rotary abrasion with a variety of sanding and grinding discs is the most common removal method. The more aggressive the method is, the faster the removal rate will be and the rougher the final surface achieved. Abrading is slow and generates a great deal of dust unless a vacuum device is attached to the grinder - these attachments are readily available now and are efficient enough to allow grinding where necessary, even in food processing and other clean environments.

**NOTE:** Coarse abrasive discs have been found to generate less dust than finer discs, which actually tend to polish the surface.

Flexible scrapers such as those used in mechanical chisels / chipping hammers also can be used to remove the excess cured material. They always work well, but they work best on smooth floor and wall surfaces.

No matter which procedure is used or what the Operative's skill level is, the concrete surface will probably be damaged in some way after removing the cured product.

Generally, it is advisable to perform a trial first.



# **5 ACCESSORIES**



An essential part of the whole chemical anchoring application is the accessories. They have a major influence on the whole application, in terms of quality and application speed. All Accessories are therefore referred to and declared by type and size in all the approvals, as without using them, a sufficient application cannot be guaranteed, and the anchor may fail.

Always use the original accessories and the correct size for each application. They have a major influence on the performance of each anchor.

**NOTE:** All the values given in the Approvals can only be achieved by using the correct accessories!

For technical data of all Sika® AnchorFix accessories, please refer to the Product Data Sheet of each single item. For order data, please contact your Sika® Representative.



Static Mixers / Nozzles (PHN: 020205020000000003)



Hole Cleaning Brushes Hybrid (PHN: 020205020000000001)



Hole Cleaning Brushes Full Steel (PHN: 020205020000000006)



Cleaning Pump (PHN: 02020502000000010)



Flexible Extensions (PHN: 020205020000000008)



Straight Extensions (PHN: 020205020000000009)



Resin Stoppers (with flexible tube) (PHN: 020205020000000007)



Perforated Sleeves (PHN: 020205020000000002)



#### 5.1 STATIC MIXERS / NOZZLES

Sika AnchorFix® Static Mixers / Nozzles are fixed onto each Sika AnchorFix® product to achieve the correct mixing of the two-part cartridge anchoring adhesive and application into drilled anchoring holes.

Before the Sika AnchorFix® adhesive is applied, screw the correct static mixer nozzle onto each Sika AnchorFix® Cartridge after removing the cartridge cap and releasing the material. It is essential the correct mixing nozzle is always used with the Sika AnchorFix® chemical anchoring systems. Use of non-approved mixing nozzles may insufficiently mix the product, vary the consumption and reduce performance. When Sika AnchorFix® Static Mixers / Nozzles have been fixed into position, pump the gun / applicator at least twice until both components are extruded as one consistent colour. Do not use this material and discard accordingly. Release the gun / applicator pressure and clean the static mixer opening with a cloth. For specific Sika AnchorFix® anchoring adhesive installation procedures, refer to the individual Product Data Sheets and any associated further documentation.

- Do not use other types of static mixer nozzles, only use Sika AnchorFix® static mixer nozzles!
- Do not cut and reduce the length of static mixer nozzles as this will affect the mixing performance.
- Only use Sika AnchorFix® anchoring adhesives with Sika AnchorFix® Static Mixers / Nozzles!

#### 5.2 HOLE CLEANING BRUSHES HYBRID

Sika AnchorFix® Hole Cleaning Brushes Hybrid are brushes to clean drill hole sizes of Ø8 mm to Ø40 mm for Sika AnchorFix® applications.

A combination of correct diameter brush and compressed air (supplied by oil-free compressor) or hand pump must be used to clean holes. The drill hole must be thoroughly cleaned with the special original Sika AnchorFix® brush. The diameter of the brush must be larger than the diameter of the drill hole. Always insert the brush to the very end of the drill hole. Pull the brush out. Repeat this procedure. Do not use cleaning brushes other than original Sika AnchorFix® brushes.

#### 5.3 HOLE CLEANING BRUSHES FULL STEEL

Sika AnchorFix® Hole Cleaning Brushes Full Steel are brushes to clean drill hole sizes of Ø12mm to Ø55mm for Sika AnchorFix® applications.

A combination of correct diameter brush and compressed air (supplied by oil-free compressor) or hand pump must be used to clean holes. The drill hole must be thoroughly cleaned with the special original Sika AnchorFix® brush. The diameter of the brush must be larger than the diameter of the drill hole. Always insert the brush to the very end of the drill hole. Pull the brush out. Repeat this procedure. Do not use cleaning brushes other than original Sika AnchorFix® brushes.

# 5.4 CLEANING PUMP

Sika AnchorFix® Cleaning Pumps are hand tools to clean drill hole sizes of Ø10mm to Ø60mm for Sika AnchorFix® applications.

The drill hole must be cleaned, starting from the bottom of the drill hole. Fully extend the pump piston. Insert the flexible tube to the bottom of the drill hole. Push the piston back rapidly to blow out the dust from the drill hole. Repeat this procedure. A combination of correct diameter brush and compressed air (from an oil-free compressor or Sika AnchorFix® Cleaning Pump) must be used to clean the drill holes. Do not use other cleaning pump types. Sika AnchorFix® Cleaning Pump is designed to produce the correct volume of air for the different sized drill holes.



#### 5.5 FLEXIBLE EXTENSIONS

Sika AnchorFix® Flexible Extensions are flexible tubes and are used as extensions of the nozzles / static mixers to apply Sika AnchorFix® into deep drill holes.

If the drill hole depths are sufficiently deep to require, place extension tubes over the end of the static mixers / nozzles. Extension tubes can be cut to the required length to reach the back of the holes.

#### 5.6 STRAIGHT EXTENSIONS

Sika AnchorFix® Straight Extensions are straight tubes and are used as extensions of the nozzles / static mixers to apply Sika AnchorFix® into deep drill holes

If the drill hole depths are sufficiently deep to require, place extension tubes over the end of the static mixers / nozzles. Extension tubes can be cut to the required length to reach the back of the holes.

#### 5.7 RESIN STOPPERS (WITH FLEXIBLE TUBE)

Sika AnchorFix® Resin Stoppers are tools for filling deep and / or large diameter drilled holes by eliminating air voids. It is used with Sika Anchorfix® Flexible Tubes which are fixed onto the static mixer.

All resin stoppers must be used in conjunction with a 14 mm (9/16") outer diameter (O/D) Sika AnchorFix® Flexible Tube. The tube must be applied onto the original static mixer of a Sika AnchorFix® product

Insert the resin stopper to the bottom of the hole. Pump the resin material and allow the hole to fill. Always insert the Sika AnchorFix® Flexible Tube so that it is flush with the outlet of the resin stopper. After use, wipe resin stopper clean with a damp cloth and reuse. Only use original Sika AnchorFix® Resin Stoppers.

## 5.8 PERFORATED SLEEVES

Perforated sleeves are used to carry out expansion-free fixing of anchors in hollow masonry and hollow bricks.

After cleaning dust, etc., from the drill hole, the perforated sleeve is placed into the drill hole. Starting from the bottom of the perforated sleeve, gradually apply the Sika AnchorFix® anchoring adhesive into the sleeve so the resin squeezes out through the perforations. Close the sleeve center ring cap to avoid resin escaping before insertion of the anchor. Insert the anchor into the sleeve with a rotary motion within the stated adhesive open time. Some of the adhesive must flow out of the end of the sleeve and through the perforations into the cavity of the hollow masonry.

Also refer to chapter 4.3.



# 6 DISCLAIMER AND ADDRESS OF SIKA® COMPANY

This Method Statement is provided by Sika® as a 'standard proposal' for the application of Sika AnchorFix® Chemical Anchoring Range. Please also refer to the specific recommendations in the relevant Product Data Sheet for each product.

It always remains the responsibility of the structural engineer to confirm the product suitability and the correct method for any given application.

Where alternative methods or criteria to those outlined here are to be used, these must first be submitted to Sika® Technical Services for prior approval and agreement in writing, before the commencement of any works. Sika® cannot accept responsibility or liability due to any other variations or conditions.

For your local Sika® contact details visit:

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