BUILDING TRUST

PRODUCT DATA SHEET

# Sika AnchorFix®-2+

Anchoring adhesive for medium to high loads

## DESCRIPTION

Sika AnchorFix®-2+ is a two-part epoxy acrylate anchoring adhesive, free of solvents and styrene, for applications in normal and moderate climate conditions.

## USES

Sika AnchorFix®-2+ may only be used by experienced professionals.

Sika AnchorFix®-2+ is used as a fast-curing anchoring adhesive for the following substrates:
- Cracked or uncracked concrete
- Solid masonry
- Steel
- Hard natural stone
- Solid rock

Sika AnchorFix®-2+ is used as a fast-curing anchoring adhesive for the following objects:
- Threaded rods
- Reinforcing steel
- Bolts and special fastening systems

Please note:
- The Product may only be used by experienced professionals.

## CHARACTERISTICS / ADVANTAGES

- Fast curing
- Application with single-tube dispensers
- Can be used in hammer-drilled, dustless-drilled and diamond-core-drilled bore holes
- Very good load capacity
- ETA to EAD 330087-01-0601 for post installed rebar connections
- ETA based on working life of 50 years or 100 years
- ETA to EAD 330499-02-0601 for threaded rods, rebars and threaded sockets in concrete
- Tested fire performance for threaded rods, rebars and threaded sockets in concrete
- Tested fire performance for post-installed rebar
- Seismic testing C1 available
- Suitable for use in dry, wet, and flooded holes
- Suitable for cracked and uncracked concrete
- Suitable for contact with drinking water
- Thixotropic: non-sag in vertical and overhead applications
- Styrene-free
- Low odour
- Low wastage

## ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Indoor Environmental Quality (EQ) Credit: Low-Emitting Materials under LEED® v4 — 1–3 points
- Complies with the requirements of AgBB including the LCI-values (June 2021) for use in the indoor environment.

## APPROVALS / STANDARDS

- CE marking and declaration of performance based on European Technical Assessment ETA 13/0779. ETA issued on the basis of EAD 330087-01-0601 Systems for post-installed rebar connections with mortar
- CE marking and declaration of performance based on European Technical Assessment ETA 14/0346. ETA issued on the basis of EAD 330499-02-0601 Bonded fasteners and bonded expansion fasteners for use in concrete
- Drinking Water System Components NSF/ANSI 61, Sika AnchorFix®, IAPMO R&T, Certificate No. K-8319

## PRODUCT INFORMATION

| | | |
|---|---|---|
| **Packaging** | 300 ml standard cartridge | 12 cartridges per box |
| **Colour** | Part A | off white |
| | Part B | black |
| | Part A+B | grey |
| **Shelf Life** | 15 months from date of production.<br>All cartridges have the expiry date printed on the label. | |
| **Storage Conditions** | The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to the packaging.<br>Refer to the current Safety Data Sheet for information on safe handling and storage. | |
| **Density** | Part A | 1.62 kg/L to 1.70 kg/L |
| | Part B | 1.44 kg/L to 1.50 kg/L |
| | Part A+B mixed | 1.60 kg/L to 1.68 kg/L |
| **Volatile organic compound (VOC) content** | 39 g/l | (ASTM D2369) |

## TECHNICAL INFORMATION

| | | | |
|---|---|---|---|
| **Compressive Strength** | Cured 7 days at +20 °C | 65 N/mm² | (ASTM D695) |
| **Modulus of Elasticity in Compression** | Cured 7 days at +20 °C | 7 000 N/mm² | (ASTM D695) |
| **Tensile Strength in Flexure** | Cured 7 days at +20 °C | 29 N/mm² | (ASTM D790) |
| **Tensile Strength** | Cured 7 days at +20 °C | 15 N/mm² | (ASTM D638) |
| **Modulus of Elasticity in Tension** | Cured 7 days at +20 °C | 3 800 N/mm² | (ASTM D638) |
| **Thermal Resistance** | Long term | +50 °C | (EAD 330499-02-0601) |
| | Short term (up to 2 hours) | +80 °C | |

**Service Temperature** (EAD 330499-02-0601)

| Time | Minimum | Maximum |
|---|---|---|
| Long term | -40 °C | +50 °C |
| Short term (up to 2 hours) | - | +80 °C |

## APPLICATION INFORMATION

| | | |
|---|---|---|
| **Mixing Ratio** | Part A : Part B | 10 : 1 by volume |
| **Layer Thickness** | Maximum | 5 mm |
| **Sag Flow** | Non-sag, even overhead | |
| **Product Temperature** | Maximum | +30 °C |
| | Minimum | +5 °C |
| **Ambient Air Temperature** | Maximum | +30 °C |
| | Minimum | +5 °C |
| **Dew Point** | Beware of condensation. Substrate temperature during application must be at least +3 °C above dew point. | |

| Substrate Temperature | | |
|---|---|---|
| | Maximum | +30 °C |
| | Minimum | +5 °C |

**Curing Time**

| Cartridge temperature | Open time - $T_{gel}$ | Substrate temperature | Curing time - $T_{cur}$ |
|---|---|---|---|
| +10 °C | 30 minutes | -10 °C to -5 °C | 24 hours |
| +5 °C | 20 minutes | -5 °C to 0 °C | 300 minutes |
| 0 °C to +5 °C | 15 minutes | 0 °C to +5 °C | 210 minutes |
| +5 °C to +10 °C | 10 minutes | +5 °C to +10 °C | 145 minutes |
| +10 °C to +15 °C | 8 minutes | +10 °C to +15 °C | 85 minutes |
| +15 °C to +20 °C | 6 minutes | +15 °C to +20 °C | 75 minutes |
| +20 °C to +25 °C | 5 minutes | +20 °C to +25 °C | 50 minutes |
| +25 °C to +30 °C | 4 minutes | +25 °C to +30 °C | 40 minutes |

## BASIS OF PRODUCT DATA

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.

## FURTHER DOCUMENTS

For design details, refer to the following Technical Documentation: 870 43 12 Technical Documentation Sika AnchorFix®-2+ (09 / 2016) 1
For application details, refer to the following documentation : 850 42 07 Method Statement SikaAnchorFix® chemical anchoring

## 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

### SUBSTRATE QUALITY

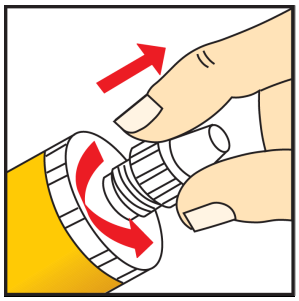
Mortar and concrete must be older than 28 days.
Verify the substrate strength (concrete, masonry, natural stone). Perform pull-out tests if the substrate strength is unknown.
Make sure that the anchor hole is clean, dry, free from oil and grease. Remove loose particles from the anchor hole.

Clean threaded rods and reinforcement bars thoroughly. Remove oil, grease or any other substances and particles such as dirt.

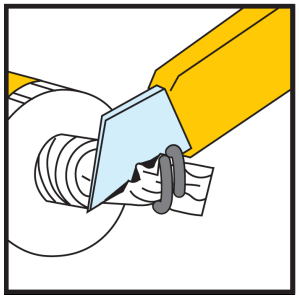
### MIXING

GETTING THE CARTRIDGE READY: 300 ML, 550 ML OR 850 ML

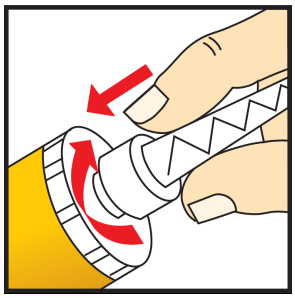
1. Unscrew the cap



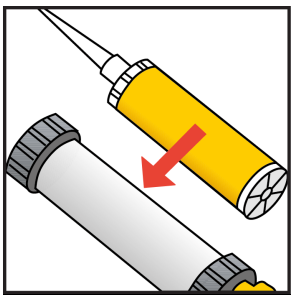
2. Cut the film



3. Screw on the static mixer

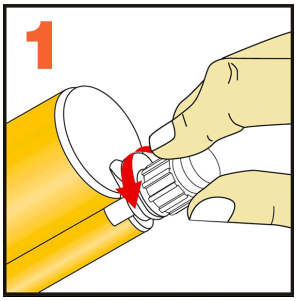


4. Place the cartridge into the dispenser and start application

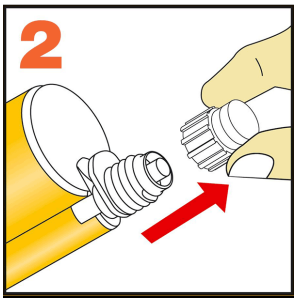


GETTING THE CARTRIDGE READY: 350 ML OR 825 ML

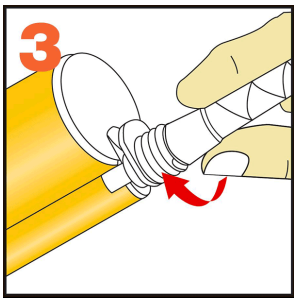
1. Unscrew the cap



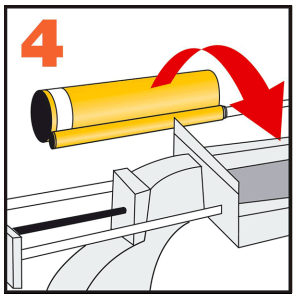

2. Remove the cap




3. Screw on the static mixer




4. Place the cartridge into the dispenser and start application




## APPLICATION

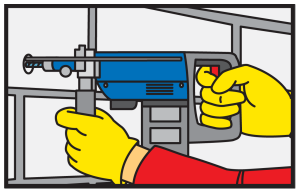
**Test if the Product is suitable for the substrate**

Note: 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.

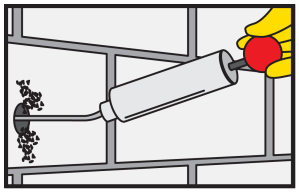
1. Test the Product's suitability in a sample area.

ANCHORS IN SOLID MASONRY OR CONCRETE

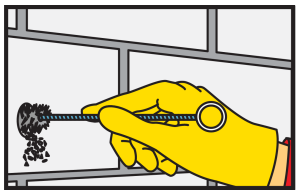
1. IMPORTANT Make sure that the drill hole diameter is in accordance with the anchor size. Drill a hole with an electric drill to the diameter and depth specified in the Technical Documentation listed in the section Further Information.



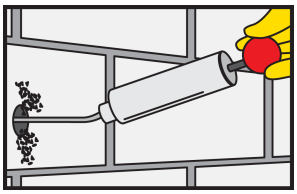
2. IMPORTANT Use oil-free compressors. Clean the drill hole with a blow pump or by compressed air, starting from the bottom of the hole. Note The hole must be cleaned a minimum of two times.



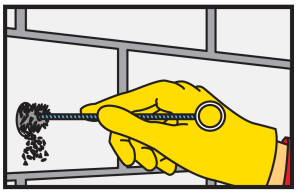
3. Thoroughly clean the drill hole with the hybrid brush. Note The diameter of the brush must be larger than the diameter of the drill hole and the hole must be cleaned a minimum of two times.



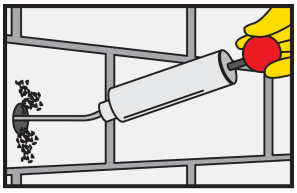
4. IMPORTANT Use oil-free compressors. Clean the drill hole with a blow pump or by compressed air, starting from the bottom of the hole. Note The hole must be cleaned a minimum of two times.



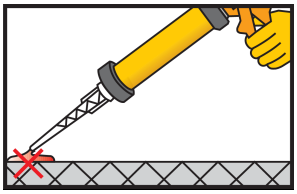
5. Thoroughly clean the drill hole with the hybrid brush. Note The diameter of the brush must be larger than the diameter of the drill hole and the hole must be cleaned a minimum of two times.



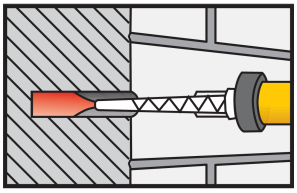
6. IMPORTANT Use oil-free compressors. Clean the drill hole with a blow pump or by compressed air, starting from the bottom of the hole. Note The hole must be cleaned a minimum of two times.



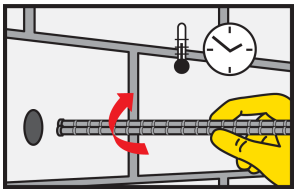
7. Pump the Product until both parts come out uniformly. Release the gun pressure and clean the cartridge nozzle with a cloth.



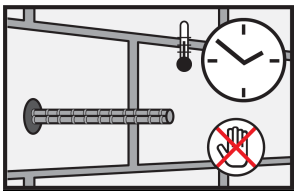
8. IMPORTANT Do not entrap air into the hole. Inject the Product into the hole starting from the bottom while slowly drawing back the static mixer. Note For deep holes extension tubing can be used.



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



10. Do not load or move the anchor during the hardening time.



### CLEANING OF TOOLS

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

## 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.

## 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.

**Sika South Africa (Pty) Ltd**
9 Hocking Place,
Westmead, 3608
South Africa
Phone +27 31 792 6500
www.sika.co.za