

TECHNICAL DATA SHEET

CicoAnchor[®] 2K

Epoxy Adhesive and Repair Mortar



QUALITY GUARANTEE

DESCRIPTION

CicoAnchor[®] 2K is a premium-grade, two-component thixotropic epoxy resin system designed for structural bonding, anchoring, and repair applications. It is engineered to deliver exceptional mechanical strength, chemical resistance, and adhesion performance, surpassing that of conventional concrete. Its high thixotropy allows application on vertical and overhead surfaces without sagging or slump. **CicoAnchor[®] 2K** adheres tenaciously to concrete, steel, stone, ceramics, glass, and various composites, even on damp substrates without requiring a primer. It is ideal for fast-setting anchoring, precision bonding, and durable structural restoration in demanding environments.

USES

Structural Anchoring & Bonding:

- High-strength steel rebar anchoring into concrete, masonry, and stone
- Bonding of external steel plates, CFRP, or structural reinforcement
- Anchoring threaded rods and dowels in overhead or vertical elements

As a fast-setting repair adhesive for:

- Cracked or damaged concrete elements
- Repair of corners, edges, voids, and cavities
- Natural stone, porcelain, ceramic tiles, and glass panels
- Fast-setting patch repair for overhead and vertical applications

ADVANTAGES

- Structural-grade formulation
- High early & ultimate strength
- Water & chemical resistant
- Solvent-free and low VOC
- High bonding and compressive strengths.
- Compatible with damp surfaces
- Thixotropic consistency

STANDARDS COMPLIANCE

Complies with the requirements of ASTM C881 – Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete, EN 1504-4 – Products for structural bonding and anchoring

PACKAGING

6 kg, 10 kg sets.

SHELF LIFE & STORAGE

12 months storage life if stored in its original unopened containers under dry and shaded place in a temperature from 5°C to 25°C.

TECHNICAL PROPERTIES

Appearance	Grey Mortar
Volume solids, %	100
Density kg/ltr @ 25°C	1.85 ± 0.05
Pot life min@ 25°C	30-40
Water absorption after 24 hrs. (ASTM D 570)	0.2 %
Coefficient of thermal expansion (ASTM C 580)	43 * 10 ⁻⁶
Heat deflection temperature (ISO 75)	60°C
Application thickness	30 mm

MECHANICAL CHARACTERISTICS

Compressive Strength (ASTM C579)	75 Mpa
Flexural Strength (ASTM C 580 @ 7 day)	25 Mpa
Tensile Strength (ASTM C 307)	17 Mpa
Adhesion to concrete (ASTM D 4541)	3.5Mpa (concrete failure)
Adhesion to steel (ASTM D 4541)	23 Mpa
Slant Shear Strength (ASTM C 882)	34±0.25
Heat deflection temperature ISO 75	60°C

APPLICATION INSTRUCTIONS

Surface Preparation

The substrate must be more than 28 days (varies on strength requirement of). The substrate (all types) must be clean, dry, or mat damp (no bonding water), free from contaminants such as dirt, oil, grease, existing surface treatments and coatings etc. Steel substrates must be cleaned to Sa 2.5. The substrate must be sound, and all loose particles must be removed. The hole surface to be anchored by CicoAnchor®2K should be clean, free from standing water and all contaminants such as oil, grease, laitance, paint, or corrosion products. Any contamination should be removed by mechanical means to produce a sound substrate.

Mixing

Stir the content of component A & B separately first for at least 3 minutes with a slow speed electric drill (maximum 300 rpm) then the entire contents of the component B (hardener tin) should be poured into component A (resin container) and both should be mixed thoroughly using mid speed drill for one minute until a uniform consistency is achieved. Avoid aeration while mixing. Then, pour the whole mix into a clean container and stir again for approximately 1 more minute at low speed to keep air entrapment at a minimum. Mix quantity which can be used within pot life.

APPLICATION

As an Externally bonded steel reinforcement

Spread CicoAnchor® 2K evenly on the prepared concrete surface and the steel plate using a notched trowel or spatula. Apply sufficient material to ensure 100% contact area without voids. Press the steel plate firmly into position, ensuring the adhesive extrudes slightly at edges (this confirms full contact). Clamp or fix temporarily using bolts or mechanical props until the initial set. Remove excess material from edges before curing.

As a steel anchoring adhesive

Drill hole diameter is all the time related to the embedded steel rebar diameter. The following table shows that relation which shows obviously the bigger the rebar diameter, the bigger the excess of the hole diameter, and

that to give more tolerance for steel notches to be inserted easily.

HOLE DEPTH

Hole depth depends on more than one factor:

- Concrete shear strength
- Steel rebar grade (tensile strength)
- Steel rebar diameter

CHEMICAL RESISTANCE

The fully cured CicoAnchor®2K is resistant to wastewater, sea water and wide range of chemicals including the common acids, alkalis and solvents, such as Sulfuric Acid, Hydrochloric Acid, Ammonium Hydroxide, Xylene, and White Spirit, as well as Diesel, Gasoline, Engine oils, and detergents.

CLEANING

Tools contaminated with CicoAnchor®2K can be cleaned using Cicosolvent®. Hardened grout can only be removed by light mechanical means.

LIMITATIONS

Cicoanchor®2K is not advisable to be loaded before 24 hours of anchoring to have the safest results.

PRECAUTIONS HEALTH AND SAFETY

CicoAnchor®2K is non-hazardous. However, it should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles should be worn. Splashes on the skin should be removed with water. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting.

TECHNICAL SUPPORT

CIC provides on-site assistance and consulting services on projects when requested. Technical data sheets on other CIC products and guidance on their use are available on request.

Warranty

CIC products are guaranteed against defective materials and manufacture and sold subject to CIC's standard terms and conditions of sale. Whilst CIC endeavors to ensure that any advice, information or recommendation given is correct, the company cannot accept any liability either directly or indirectly arising from the use of its products. User of the product must test the product's suitability for the intended application and purpose, since the company has no control over the application of its products. Information contained in this document is given on the best current knowledge. Our Products are in continuous development and CIC reserves the right to change the product without prior notice.

Technical Data Sheet
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