

# CIKOtile 2K-Flex



**Two components, Cement based liquid polymer modified, fast setting tile adhesive**

## Description

CIKOtile 2K-Flex, two components polymer latex modified cement based fast setting tile adhesive suitable for horizontal and vertical applications on concrete, screed and masonry mortar substrates. It exhibits excellent bonding properties to concrete substrates and compatible with all common types of tiles.

The product is a factory blended product made of powder part consisting of cement, graded aggregates, water retention agent, rheology modifier and a second liquid component as adhesion enhancing and water resistant polymer.

## Properties & Advantages

- Two components system, easy to mix and apply
- Fast setting allowing early access and traffic
- High resistance to moisture, water, freezing and heat
- Provides good workability and open time even with fast setting properties
- Excellent tensile bond strength
- Compatible with absorbent and non-absorbent tiles
- Suitable to be applied over plaster, concrete, screed, insulation boards, water resistant gypsum boards and cement boards.

## Application area

CIKOtile 2K-Flex is a high quality fast setting tile adhesive suitable for fixing ceramics, mosaics, and marbles, stones, porcelains and glass tiles to cement substrates at indoor and outdoor conditions. It is particularly designed for applications demanding high resistance to moisture, water, heat and freezing such as in case of fully submerged conditions like swimming pools, water tanks, Jacuzzis etc.

## Applicable standards

CIKOtile 2K-Flex complies with minimum performance requirements of:

- ANSI A118.4-F
- BS EN 12004 & ISO13007-1 Code C2FE-S1.
- Qatar Construction Specifications QCS.

## Physical properties

|                                                                   |                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------|
| Form                                                              | Two component system<br>Part-A : Powder<br>Part-B : Liquid |
| Colour                                                            | Grey or White                                              |
| Mixed Fresh Density                                               | 1.85±0.03 g/mL                                             |
| Transverse deformation<br>ISO13007-2                              | 3.5-4 mm                                                   |
| Open Time Tensile<br>adhesion strength- BS<br>EN:1346/ ISO13007-2 | ≥1N/mm <sup>2</sup> @ 10 mins                              |
|                                                                   | ≥0.6 N/mm <sup>2</sup><br>@ 24 hours                       |
|                                                                   | ≥1 N/mm <sup>2</sup><br>Initial Adhesion                   |
| Tensile Adhesion<br>Strength BS EN 1348/<br>ISO13007-2            | ≥1N/mm <sup>2</sup><br>Water immersion                     |
|                                                                   | ≥1.3N/mm <sup>2</sup><br>Heat Ageing                       |
|                                                                   | ≥1N/mm <sup>2</sup><br>Freeze-Thaw Cycle                   |

## Coverage

A 20kg Kit/Set of CIKOtile 2K-Flex yields 10.5 L to 11 L and provides theoretical coverage as below:

|                  |                          |
|------------------|--------------------------|
| 3*3 mm notched   | 7- 7.3 m <sup>2</sup>    |
| 4*4 mm notched   | 5.25- 5.5 m <sup>2</sup> |
| 10*10 mm notched | 2.1- 2.2 m <sup>2</sup>  |
| 20*20 mm notched | 1.05- 1.1 m <sup>2</sup> |

Coverage rate may vary depending on substrate conditions and finish.

CIKOtile 2K-Flex is suitable for bedding thickness ranging between 1.5 mm and 20 mm.

## Application instructions

### Surface preparation

The concrete or mortar surface should be free from dust and loose particles. In case of traces of oil and grease, the surface shall be treated by acid etching or sand blasting. Curing compounds and sealers, if present, must be removed by mechanical means. Upon ensuring a sound and clean substrate, wet the substrate surface and bottom side of tile with clean water just before the application of CIKOtile 2K-Flex. Assure no standing water is present.

### Mixing

Pour the Liquid component of CIKOtile 2K-Flex in a clean container of minimum capacity 20 L, dispense the powder component gradually while mixing using heavy duty adjustable speed drill-paddle mixer assembly. Mix at least 3 minutes at high speed so that the mixed material attains a thick, trowel-able and lump free consistency. Slight amounts of water can be added to achieve required consistency.

### Application method

Immediately after mixing, spread the mixed material over the dampened area to a uniform thickness. Comb the applied surface using a semi-notched trowel. Press the tile firmly to the adhesive bed in perpendicular motion to notched lines and ensure that the tile is firmly bonded to the substrate. Adjustment of the tile shall be done within 5 to 10 minutes after initial positioning.

At high ambient temperatures, it is advisable not to increase the spreading area over the surface so that installation of the tiles takes place within the open time of the adhesive (5-10 minutes) to prevent skin formation which affects the bonding performance.

### Packaging

CIKOtile 2K-Flex is available in 20 kg kit consisting of 16kg powder [Part-A] and 4.0 kg liquid [Part-B].

### Storage

CIKOtile 2K-Flex should be stored under enclosed shaded area at temperatures between 5°C and 45°C.

## Shelf Life

CIKOtile 2K-Flex has a shelf life of 12 months when stored in its unopened original packaging as per CIKO's recommendations.

## Precautions & Limitations

- When CIKOtile 2K-Flex is used over gypsum surfaces, light weight panels, light weight blocks, cement board or any other substrates having high surface absorption, It is recommended to seal the substrate using CIKObond PVA or CIKObond AC and allow drying prior to the application.

## Health & safety

Use standard dust mask to avoid inhalation of dust. Powder when wet or moist can cause burns to skin and eyes which should be protected during use. If comes in contact with skin/eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

## Technical Support

*For any technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.*

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