

CIKOKey Grout EP



Epoxy Resin Based Chemical Anchor

Description

CIKOKey Grout EP is a two components epoxy resin grout for both horizontal and vertical anchoring in concrete, solid masonry, mortar, bricks etc.

It is specially formulated to provide a permanent installation of reinforcement bars and rods into dry, damp and flooded substrates.

Properties

- Non sagging and thixotropic, can be used even for overhead application
- Rapid strength development, fast curing
- High load capacity
- Can be used in wet concrete and flooded hole
- Non-shrinking, can be used in oversized holes.
- Low VOC and styrene free.
- Easy to use: Pre-packed in dual cartridge system

Application area

CIKOKey Grout EP can be used as a fast curing chemical anchoring grout for all the grades of:

- Reinforcement bars
- Load-carrying attachments in solid stone and concrete
- Starter bars
- Anchor bolt, rods, threaded collars etc.
- Anchor socket
- Threaded rods (from M8 to M20)
- Rebar (diameter from 8mm to 20mm)
- Fixing of wooden construction, metal constructions, metal profiles, sanitary fittings, pipe connections, projecting roofs, facades, cable trays, railings, staircases, gates, window elements.

Working & Hardening Time

Surface temperature (°C)	10	20	30	40
Working time (mins)	20	12	8	5
Loading time (hours)	24	6	4	3

Physical properties

Colour of the mix	Light Grey
Mixed density	1.8 ± 0.05 kg/L
Compressive strength	≥50 N/mm ² (1 day)
ASTM C579	≥60 N/mm ² (7 days)

Coverage / Fixing

Threaded Stud	Hole d ₀ (mm)xh ₁ (mm)	Number of fixing
M8	10 x 85	77-86
M10	12 x 95	47-52
M12	14 x 115	27-31
M16	18 x 130	11-13
M20	24 x 175	7-8

Note: The number of fixings above mentioned has been calculated according to the theoretical volume needed to fill the hole (or sleeve) excluded the volume of the inserted metal rod. In the theoretical volume it is included a standard extra quantity but the real quantity of the product may be different than it in function of the real application of the product.

Performance Data

Class 8.8 Rod	Dimensions and distances				Characteristic Tensile resistance(KN)	Concrete C20/C25		Torque moment (N.m)
	Drill diameter d ₀ (mm)	Embedment depth (mm)	Edge distance (mm)	Anchors Distance (mm)		Admissible tensile load (KN)	Admissible Shear load (KN)	
M8	10	80	80	160	20	6.5	8	10
M10	12	90	90	180	35	11.5	13	20
M12	14	110	110	220	41	14	19	40
M16	18	125	125	250	67.5	22.5	35	80
M20	24	170	170	340	115	38.5	54.5	100
Steel Bar	Dimensions and distances				Characteristic Tensile resistance(KN)	Concrete C20/C25		Torque moment (N.m)
B450C BST500	Drill diameter d ₀ (mm)	Embedment depth (mm)	Edge distance (mm)	Anchors Distance (mm)		Admissible tensile load (KN)	Admissible Shear load (KN)	
M8	12	80	80	160	20	6.5	8	10
M10	14	90	90	180	35	11.5	13	20
M12	16	110	110	220	41	14	19	40
M16	20	125	125	250	67.5	22.5	35	80
M20	24	170	170	340	115	38.5	54.5	100

Safety factor for tension loads is 3.5

Application instructions

1. Drill the hole using an electrical drill perpendicularly into the concrete in accordance to anchor size.
2. Blow the hole with an appropriate pump blower or compressed air (oil-free compressors shall be used) clean the lateral surface of the hole with an appropriate steel brush, and blow again in the hole until there is no dust and/or any residual material inside. We strongly recommend to use the steel brush to clean the hole sides.
3. Unscrew the front cup, screw on the mixer and insert the cartridge in the gun. Use protections for hands and face.
4. Before starting to use the cartridge, eject a first part of the product, being sure that: 1) Through the mixer (transparent) see that the flux of product is composed of the part A (Beige colour) and of part B (black colour). 2) The two components are completely mixed. The complete mixing is reached only after that the product, obtained by mixing the two components, comes out from the mixer with a uniform colour. Now the cartridge is ready to be used.
5. Inject resin into the hole up to fill it 2/3rds. 2) Before insert the rod, verify that the element is dry and free from oil and other contaminants. Insert threaded stud turning back and forth to avoid presence of air in the fitted hole. 3) For the installation and the following anchor load phase, respect the open time and curing time detailed in the technical data sheet 4) before to load the anchor, check the hardened of the product. 5) The cartridge can be used again screwing the cup and replacing the mixer.

Packaging

CIKOKey Grout EP is available in 345 mL side by side cartridge.

Shelf life

CIKOKey Grout EP has a shelf life of 2 years if stored in accordance with manufacturer instructions.

Storage

CIKOKey Grout EP should be stored under cool enclosed shaded area at temperatures between 5°C – 30°C.

Health & safety

CIKOKey Grout EP should not come in contact with eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Applicator should wear appropriate clothes, gloves and goggles. Use of barrier cream is recommended to provide additional skin protection. If comes in contact with 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.

More from CIKO Middle East

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries

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Note: The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.



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