

BCR470EPOXY 21

Smart Chemical Solutions



سيكو الشرق الأوسط
MIDDLE EAST

(Previously known as CIKO dowel EP21)

High Performance Epoxy Resin Cartridge for Anchoring

Description

BCR470EPOXY 21 is a two components epoxy resin grout for both horizontal and vertical anchoring in concrete, solid masonry, etc. It is specially formulated to provide a permanent installation of reinforcement bars and rods into substrate.

Properties

- Non sagging even for overhead application
- Rapid strength development
- High load capacity
- Can be used in wet concrete and flooded hole
- without doubling the curing time
- Low VOC
- Easy to use: Pre-packed in dual cartridge system
- Exceptional adhesion

Application area

BCR470EPOXY 21 can be used as a fast curing anchoring adhesive for all the grades of:

- Reinforcement bars
- Starter bars
- Anchor bolt
- Anchor socket
- Threaded roads (from M8 to M30)
- Rebar (diameter from 8mm to 32mm)

Setting Time

T °C	5 (minimum application temp)	10	15	20	25	30	40	50
Time	2h 30'	1h40'	1h10'	50'	30'	20'	15'	7'
Loading time	41h	28h	22h	16h	14h	12h	7h	7h

Physical properties

Colour of the mix	Grey
Mix density	1.5 ± 0.05 kg/l
Compressive Strength UNI EN ISO 604	80MPa
Tensile Strength UNI EN ISO 527	19.5 MPa
Flexural Strength UNI EN ISO 178	58 MPa
Linear coefficient of the shrinkage	0.001

Load Data with Maximum effective anchorage depth (@ 25 degree C)

Condition 1		
Steel Quality	B450C BST500	
Rebar Diameter	12 mm	25 mm
Anchoring Depth	240 mm	500 mm
Ultimate Tension Load	61 KN	265 KN
Ultimate Shear Load	36.6 KN	159 KN

Condition 2		
Steel Quality	8.8	
Threaded Rod	M12	M24
Anchoring Depth	240 mm	480 mm
Ultimate Tension Load	67.4 KN	293.0 KN
Ultimate Shear Load	40.4 KN	175.8 KN

*Additional information for other condition are available upon request

Coverage / Fixing

Threaded Stud	Hole $d_0(\text{mm}) \times h_1(\text{mm})$	Number of fixing
M8	10 x 85	±89
M10	12 x 95	±60
M12	14 x 115	±36
M16	18 x 130	±24
M20	24 x 175	±8
M24	28 x 215	±6
M27	30 x 245	±5
M30	35 x 275	±3

WARNING: 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.

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 (white 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 component, 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

BCR470EPOXY 21 is available in 470ml side by side cartridge. Other cartridge sizes are available upon request.

Shelf life

BCR470EPOXY 21 has a shelf life of 2 years if stored in accordance with manufacturer instructions.

Storage

BCR470EPOXY 21 should be stored under cool enclosed shaded area at temperatures between 5 – 30°C.

Health & safety

BCR470EPOXY 21 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 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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ت : ٤٤١١ ٤٧٨٧ ، ٤٤١١ ٤٧٩٠ ، ٤٤١١ ٤٧٩٤
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