

CIKOkey Grout PE



Polyester Resin Chemical Anchor cartridge

Description

CIKOkey Grout PE is a two components polyester resin based injection grout for both horizontal and vertical anchoring in concrete, solid masonry, mortar, bricks etc.

It is specially formulated to provide a permanent installation of rods, into solid and hollow structures.

Properties & Advantages

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

Application Area & Uses

CIKOkey Grout PE can be used as a fast curing chemical anchoring grout:

- Low to medium Load-carrying attachments in solid stone and concrete
- Anchor bolt, rods, threaded collars etc.
- Anchor socket
- Threaded rods (from M8 to M20)
- Fixing of wooden construction, metal constructions, metal profiles, sanitary fittings, pipe connections, projecting roofs, facades, cable trays, railings, staircases, gates, roller blinds, antennas, window elements.

Working & Loading Time

Base Material temperature (°C)	5	10	15	20	25	30	35	40
Working time (mins)	15	12	8	6	4	3	2	1
Loading time (mins)	120	90	60	45	30	20	15	12

Physical Properties

Compressive Strength	≥60 Mpa @ 1 day
ASTM C579	≥65 Mpa @ 7 days
Colour of the mix	Light Grey
Mixed density	1.7 ± 0.05 kg/L

Coverage / Fixing

Anchor Rod	Hole d _o (mm)xh ₁ (mm)	Number of fixing
M8	10 x 80	80-90
M10	12 x 90	45-50
M12	14 x 110	27-30
M16	18 x 125	14-16
M20	24 x 170	6-7

Note: The number of fixings above mentioned has been calculated according to the theoretical volume needed to fill the hole (or sleeve) in solid structures 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 in Solid Structures

Anchor Class	Dimensions and distances				Resistance		Concrete C20/C25		Torque moment (N.m)
	Drill diameter d ₀ (mm)	Embedment depth (mm)	Edge distance (mm)	Anchors Distance (mm)	Characteristic Tensile load (KN)	Admissible tensile load (KN)	Admissible Shear load (KN)		
M8 Rod	10	80	80	160	12.9	4.3	5.8	10	
M10	12	90	90	180	19.7	6.6	9.2	20	
M12	14	110	110	220	32.8	10.9	13.4	40	
M16	18	125	125	250	44.6	14.9	24.9	80	
M20	24	170	170	340	75.8	25.3	39.2	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 and discard the first 10 mL, 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 working time and loading time detailed in the technical data sheet 4) before loading the anchor, check if product has hardened. 5) The cartridge can be used again by screwing the cup and replacing the mixer.

Packaging

CIKOkey Grout PE is available in 345 mL side by side cartridge.

Shelf life

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

Storage

CIKOkey Grout PE should be stored under cool enclosed shaded area at temperatures between 5°C – 25°C.

Health & safety

CIKOkey Grout PE 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