

CIKO Flogrout



(previously known as CIKogrout HIFO)

Flowable, Non-shrink, high strength cement-based grout

Description

CIKO FloGrout is a factory blended multi-purpose high flow, non-shrink, cement-based grout suitable for interior and exterior uses for filling gaps between similar or dissimilar substrates. CIKO FloGrout is suitable for anchoring pre-cast columns, base plates, fence posts, etc.

CIKO FloGrout is a balanced blend of selected cement type, several grades of selected aggregate, flow enhancing and shrinkage compensating additives resulting in a free-flow, high strength grout.



Properties & Advantages

- Single component system, easy to mix and use at site
- Controlled expansion in both plastic and hardened stage.
- High early and final strength.
- Low water permeability.
- Chloride free and not harmful to be in contact with steel.
- Free of metal expansion agents
- Frost and salt resistant.
- High flow, pourable and pumpable depending on hydraulic pump type.

Application Area & Uses

CIKO FloGrout can be used for the grouting of several areas such as, but not limited to:

- Machinery base plate.
- Anchoring.
- Bridge bearing.
- Concrete structures.
- Storage rack base.
- Pre-cast concrete parts.
- Rails grouting.
- Industrial plants.

Applicable standards

- CIKO FloGrout complies with the minimum performance requirements of ASTM C1107 grade B & C.
- Complies with Qatar Construction Specifications QCS.

Physical properties

Form	Powder
Colour	Cement grey (standard)
W/P	0.13 - 0.15
Fresh Density	≈2.35 ± 0.05kg/m ³
Maximum Aggregate size	3 mm
Flow Proprietary ASTM C1437 (W/P=0.15)	≥145%
Early height changes of grout ASTM C940	0 to 3 %
Height change of hardened cylinder grout ASTM C1090	0 to 0.2% (at 1,3,7,28 days)
Compressive strength ASTM C109 @ (W/P=0.13)	1 day ≥30 N/mm ²
	3 days ≥40 N/mm ²
	7 days ≥60 N/mm ²
	28 days ≥70 N/mm ²
Flexural strength ASTM C348 @ (W/P=0.13)	3 days ≥8 N/mm ²
	7 days ≥10 N/mm ²
	28 days ≥14 N/mm ²
Application Thickness*	10 to 120 mm

- *higher thickness may be achieved by adding 10mm aggregate with a ratio up to 40% by weight to the bag. Consult CIKO technical service department for further support.*
- *Typical values may vary by ±5% depending on manufacturing tolerances and the W/P ratio.*

Coverage / Yield

A 25 kg bag of CIKO FloGrout mixed with 3.25-3.75 litres of water yields 12.0 up to 12.5 litres of fresh grout.

Application instructions

Surface preparation

Clean the concrete surface using water blasting or other suitable methods to remove loose or unsound material. The surface must be sound, rough, and free from oil, grease, curing compounds, fair-facing materials, or any contaminants.

Formwork

Use watertight formwork around the grouting area to the required height. Limit shoulder width around the base plate to max. 50 mm to prevent expansion cracks in unrestrained areas. Apply a CIKOjoint gun-grade sealant 12 hours before grouting to seal gaps between formwork and concrete, ensuring watertightness.

Soaking/priming

Before grouting, fill formwork with water to soak the concrete surface for ~6 hours. Just before grouting, remove all standing water from formwork and bolt pockets using mechanical means or a sponge. Alternatively, to enhance bond strength, prime the concrete with a suitable CIKOBond product. For guidance, contact CIKO Technical Department.

Mixing

CIKO FloGrout is ready-to-use—just add 3.25 to 3.75 L of water per 25 kg bag. Measure water per batch and pour into a running mixer. Gradually add CIKO FloGrout powder into the mixer while mixing.

Chilled water must be used to attain optimum results, the recommended temperature of grout shall be within 7°C & 35°C. Higher T increase the amount of mixing water needed for a given fluidity, limits the working time and reduce the ultimate strength. Low temperatures may cause bleeding & slow setting but improve ultimate strength by allowing reduced water content.

Placing

Begin pouring the mixed grout as soon as possible after mixing. Pour from one side or corner of the base plate to prevent air entrapment. Maintain a minimum 15 cm head to ensure optimal flow. For machinery installation, grout anchor bolt pockets before grouting under the base plate.

Curing & Protection

Cure exposed grout surfaces using standard water curing for at least 3 to 7 days. For vertical areas after shutter removal or when exposed to harsh conditions, applying a CIKOcure curing agent is recommended.

Legal Notice and Warranty

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.

Precautions and Recommendations

- Ambient temperature shall be between 5°C - 40°C.
- The temperature of both the grout and elements encountering the grout should be in the range of 7°C to 35°C.
- Do not overwork and avoid using mechanical vibration.
- Do not re-temper CIKO FloGrout with water after mixing.

Packaging

CIKO FloGrout is available in 25 kg bags.

Storage

Store CIKO FloGrout in its unopened original packaging under enclosed shaded areas away from direct sunlight, rain or moisture.

Shelf life

CIKO FloGrout has a shelf life of 12 months if stored in accordance with CIKO's recommendations.

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 encounters 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.

More from CIKO Middle East

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

- Concrete admixtures and additives
- Waterproof and Damp-proof coatings
- Surface Treatments
- Walls, Flooring and Toppings
- Grouts and anchors
- Tile Adhesives and Grouts
- Concrete Repair Materials
- Adhesives and Bonding Agents
- Protective Coatings & Sealers
- Joint Sealants and Moulding compounds
- Sports Flooring
- Plastering Mortars
- Paints