

CICO GROUT-V1

PREMIXED HIGH STRENGTH NON-SHRINK CEMENTITIOUS GROUT

CICO GROUT-V1 is chloride free cement based free flowing non-metallic grout that develops very early high compressive strengths. **CICO GROUT-V1** was developed in answer to the disadvantages of existing grout mixtures. Its wide acceptance and extensive test indicate that **CICO GROUT-V1** is a proven and established product of excellent quality

USES

CICO GROUT-V1 is used and specified by major utilities like steel projects, paper mills, highway departments and machinery and turbine manufacturers far and wide. **CICO GROUT-V1** is a proven international non-metallic grout.

FEATURES

- Controlled expansion ensures positive surface contact.
- High early strength facilitates rapid installation and early operation.
- No rusting, staining on exposed edges.
- Free from chloride compound ensures non-corrosive property.
- Highly impervious characteristics provide greater durability to installed structure.
- Very easy to use- addition of water only needed.
- Reliable- produced under rigid quality control.

ADVANTAGES

- **CICO GROUT-V1** is chloride free and non-metallic, thereby overcoming the disadvantages of metallic grouts. Grouting mixtures containing metallic additives will oxidize and rust when exposed to moisture thus weakening the cohesive bond of the grout.
- Has controlled expansion and is guaranteed not to shrink.
- Limited expansion is necessary to ensure a rigid monolithic bond between machinery and foundation.
- **CICO GROUT-V1** has a measured volumetric expansion, within 24 hours it is completely stable, neither shrinking nor expanding.
- Provides a full bonding strength and is resistant to high impact and vibration without shattering.
- **CICO GROUT-V1** is water and oil resistant and non-corrosive.
- Has an extremely high adhesive and pull-out strength.
- An anchor bolt (diameter 25 mm) grouted 20 cm deep, has a pull-out resistance of $144 \text{ kg/cm}^2 = 14.12 \text{ MPa}$.

- Withstands great fluctuations of moisture, dryness, heat and cold.
- Reduces about 60%-80% of bearing failures on machinery of rolling mills.

TECHNICAL DATA

Granulometry	0-4mm
Water –Powder Ratio	0.12 to 0.14
Compressive Strength, N/mm² at 30° C, 24 hours	≥ 30
3 days	≥ 45
7 days	≥ 55
28 days	≥ 70
FWD (Kg/m³)	2400±100
Chloride content	Nil (as per BS 5075 Part-I)
Shelf Life	6 Months in packed sealed condition

INSTALLATION ADVANTAGES

- **CICO GROUT-V1** is guaranteed a constant continually controlled mixture. Pre-mixing at the factory under strict quality control that requires no complicated job-site mixing or skill, other than the addition of water.
- Facilitates easy handling and storage. **CICO GROUT-V1** is protected in a vapour barrier bag that prevents exposure to the elements.
- Eliminates shrinkage, has flowable consistency, good workability and excellent void filling action (self-leveling).
- Is ready to use and allows ample time for finishing work.
- Can be poured, poked, pumped, dry-packed and rammed. If **CICO GROUT-V1** is poured or vibrated into place there is no segregation.
- Is cement coloured and non-straining.
- Gives increased yield. You need about 1900-2050 kg for 1 m³ of **CICO GROUT-V1** (2200-2300 kg).
- Can be installed in all temperatures. At freezing temperatures, our Service Dept. should be consulted before grouting is carried out.
- Can be pumped through small nozzles over great distances.
- Contains no harmful chemicals.

METHOD OF APPLICATION

CICO GROUT-V1 is ready for use, requiring only the addition of water. Before placement the surface should be thoroughly cleaned and wet. Care must be taken to ensure that grease and oil are removed. In order to reach the required consistency 3-3.5 litres of water to per 25 kg CICO GROUT-VI are needed. First add 2/3 of the total needed water. Mix for a short time, and then add the balance quantity of mixing water. Proceed to mix for about 4-6 minutes. In order to prevent voids apply grout from one side or corner only.

It must be noted that the generally the gap width between the perimeter formwork and the base plate edge should not more than 150 mm on the pouring side and 50 mm on the opposite side. In practical, it is advisable that there should be no gap at the flank sides.

GENERAL INFORMATION

CICO GROUT-V1 will reach a compressive strength about 30 N/mm² within 24 hours and will increase to approximately 45 N/mm² within 3 days.

An allowable differences may occur in compressive strength due to w/p ratio & environmental conditions.

Higher temperatures accelerate the setting time whereas lower temperatures will retard the time of reaching its compressive strength.

For example when having temperature of +40 C there would be delay of 24 hours before the initial compressive strengths are reached.

Where grouting area and flow space are of sufficient depth up to 50 % by weight of washed gravel ranging in size from 4-8 mm must be added to the dry pre-mixed grout.

Even by adding 50% of such gravel the compressive strength is reduced only slightly.

Opens areas are to be protected against pre-mature water evaporation.

Retains its decisive advantage not to shrink and to have a high adhesive bond even in such an extreme mixture.

PACKAGING

25 kg waterproof HDPE bag

STORAGE

Keep in dry cool place in sealed conditions.

HEALTH AND SAFETY

Alkaline in nature. Prolong contact with bare skin may cause irritation.

Important Note:

All CICO products are sold in the market after strict Quality Control in line of ISO 9001 and guaranteed against any manufacturing defect. Although the basic formulation of Company's products generally remains unchanged, production refinements arising from continuing research and evaluation program may occasionally result in marginal changes in properties. CICO aspires to ensure that any recommendation, advice, test data, specification, method statement and other information given in this product datasheet is accurate and best of company's knowledge. Since, the company (CICO TECHNOLOGIES LTD) has no control over the selection of its product, applicators, application methodology, how and where it is applied, therefore, the company cannot accept any liability directly or indirectly arising from the use of its product. It is important to any customer, user or specifier satisfies him / herself that the product is suitable for the intended purpose including health, safety and environmental aspect. Unless or otherwise agreed in writing, all products of the company are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. All customers, users, specifiers should ensure that they examine the suitability of the product with company's latest product datasheet.

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