

CEMCRETE GP

General Purpose Non-shrink Cementitious Grout

Description:

CEMCRETE GP is a general purpose cementitious non-shrink pourable grout. It is a blend of cement, graded aggregates and chemical additives and designed to give high flow properties, shrinkage compensation, frost resistance and high compressive strength. It is ideally used in several applications such as void filling, grouting under base plates, fence posts, precast erection machine base filling, etc. When mixed with water, CEMCRETE GP transforms into a flowable mixture that fits to be applied in different places to fill the most irregular areas.

CEMCRETE GP has excellent characteristics of adhesion, impermeability and chemical resistance. It has also a thermal expansion coefficient similar to high quality concrete. It can be applied to fill gaps with a size up to 200 mm.

Applications:

CEMCRETE GP is applied as grouting for several applications including:

- Under plates of columns footing in steel structures.
- Under machinery bases grouting.
- Grouting of fixing precast structural elements.
- Anchoring bolts and fence posts fixing.
- Floor patching and void filling.
- Precast elements erection.

Advantages:

- Non-shrink.
- No chlorides content.
- Does not contain metallic aggregate.
- Free flow and self-compacting.
- Easy to use by trowel or pouring.
- Excellent bond to substrates.
- High early strength.
- Low water cement ratio to ensure minimum permeability and high durability.

Instructions for Use:

Surface Preparation:

The surface must be solid, compact, clean, free from dust, cement laitance, oil, grease, etc. All loose parts of concrete should be removed. A coarse surface profile with aggregate exposed is preferred.

Soak the surface with water prior to start grouting and allow to drain. Concrete surface should be damped (with no free water) in order to avoid possible water absorption at the moment of casting.

Base plate must be clean and free from oil, grease, or any other contaminated material. Formwork should be constructed to be leak proof to avoid any material loss as CEMCRETE GP is a free flowing grout.

Mixing:

CEMCRETE GP must be mixed mechanically with low speed drill mixer 200-300 rpm, fitted with a suitable paddle. To prepare the mortar, pour into a cement mixer or into a container about 2.7 – 2.8 Lt. of clean water (depending on the required consistency), then add 25 Kg. bag of CEMCRETE GP and mix for few minutes till obtaining a homogeneous mixture, free from lumps. Always add the powder to the water when mixing cementitious products.

Application:

The mixed grout should be poured only from one side of the formwork to eliminate the entrapment of air. This can be achieved by pouring the grout across the shortest distance. While pouring, maintain a constant, preferably of at least 15 cm on the side where the grout has been poured. Allow 10 cm clearance between the side of the form and the base plate of the machine.

Do not add extra water to the mix more than what specified. If the mix starts to harden, do not add more water to remix. In this case do not use the mix and prepare a new one.

CEMCRETE GP

Once the poured product starts to dry, it should be cured in accordance with good concrete curing practice and protected from sun, rain and winds. Curing shall be done with curing compound such as CEMCURE AR, or with a wet Hessian cloth covered with polyethylene sheet.

Standards:

CEMCRETE GP conforms to:

- ASTM C109
- ASTM C827, C940, C580, C1240
- BS 1881, BS 4551 & BS 6319, Part 3

TECHNICAL PROPERTIES	
Appearance	: Grey Powder
Volumetric Change	: Up to 2% in 24 hours
Wet Density	: 2.15 kg/ Lt
Pot life time at 25°C	: 60 minutes
Compressive Strength	: $\geq 20 \text{ N/mm}^2$ @ 1 day $\geq 55 \text{ N/mm}^2$ @ 7 days $\geq 65 \text{ N/mm}^2$ @ 28 days
Flexure Strength	: 1.8 N/mm^2 @ 1 day $\geq 7.5 \text{ N/mm}^2$ @ 7 days $\geq 9.5 \text{ N/mm}^2$ @ 28 days
Chloride Content	: 0.0%
Fluidity	: Initial 10-20 sec <20 sec after 30 min
Volume Change	: +1.68%
Setting Time	: Initial 2 hours Final 4 hours
Elastic module after 28 days	: $25\,200 \text{ N/mm}^2$

Coverage:

CEMCRETE GP bag of 25 kg achieves 13.1 liters of wet grout.

Packaging:

CEMCRETE GP available in 25 kg paper bags.

Storage:

Store in original packing in dry conditions away from direct sunlight and high humidity levels.

Shelf Life:

CEMCRETE GP can be utilized within 12 months of production date if stored in proper conditions in unopened original packing away from direct sun and in dry conditions.

Cleaning:

Clean tools and equipment with water before material harden.

Remarks:

- Do not apply where ambient temperatures are below 5°C.
- Variations of temperature may increase or reduce the initial and final setting time of the mortar.
- During the peak temperature of the day in the summer season, working area should be covered if work to be executed externally. Use cold water for mixing and keep all tools and mixer in shaded areas

Health and Safety:

- Use goggles and gloves during application. Do not breathe dust of product.
- Avoid contact with eyes or skin.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

