



Expanmortar HS^{*}

High strength, non-shrink cementitious mortar

Uses

Expanmortar HS is especially designed for the formation of bridge bearing leveling plinths or underlayment between pre-cast concrete panels, can also be used as a high strength horizontal, vertical and overhead repair mortar for structural concrete repair. Typical applications would include, but not be limited to:

- Leveling of bridge bearing pad
- Leveling of uneven surface of concrete members
- Underlayment between precast concrete members
- Small or large concrete repair, where high early strength is required
- Single layer, high build applications
- Excellent working time

Advantages

- High early strength, speeds construction operation
- Maintains high level of impact and abrasion resistance.
- Cured material is impermeable to water.
- User friendly - specifically developed to provide an easy-to-apply product, suitable for local conditions.
- Pre-weight laboratory controlled material, ensure consistency and eliminate source of operative errors
- Can be used with any bonding agent i.e. Expanbond range.

Description

Expanmortar HS is a specially selected high strength non-shrink cementitious mortar, consist of high strength cement, micro-silica, polymers, special additives, and high quality silica aggregates, and supplied as pre packed material in pre-weighed quantity, ready to mix with cold clean water and use just before application.

Properties

The following typical results were obtained at 25 °C, at 28 days.

Test	Results	Test Method
Compressive Strength	75 N/mm ²	BS 1881 Pt. 116
Flexural Strength	10 N/mm ²	BS 4551, 1980
Tensile Strength	4.50 N/mm ²	BS 6319 Pt. 7
Water absorption	< 2%	BS 1881 Pt. 122

Note: 100 x 100 mm cubes are used for compressive strength test, and 0.15 water powder ratio used for mixing.

Surface Preparation

All surfaces should be free from grease, oil chemical contamination, dust laitance and loose concrete must be removed by scarifying. The surface must clean and dust free prior to the application of Expanmortar HS

Priming

Priming is required prior to the application of mortar, selection of primer depend on nature of repair, consult Fospak local office for suggestion.

Water / Mixing

Add 2.50 – 3.00 Ltr. cold clean water in 20 Kg. bag, use a bucket for mixing, take cold clean drinking water for mixing, water temperature should not be more than 20 °C, pour pre-measure quantity of water in-to bucket, slowly add Expanmortar HS and mix properly for 2 – 3 minutes to get homogeneous material, for mixing use slow speed drill fitted with mixing paddle, small quantity can be mix manually..

Application / Trowelling

Mixed material is applied to the primed surface with a steel trowel in approximately 15 – 50 mm per layer, taking care that the layer is well compacted, glove hand can be used to compact the mortar.

Expanmortar HS should not be applied more than 15 mm in overhead location, 25 mm in vertical location, and for horizontal surface it can be apply up-to 50 mm in single layer, where greater thickness is required, subsequent layers can be built up 18 hours after application of the preceding layer, use bonding agent in-between two layers.

Cleaning

Un-cured material can be removed from tools and mixing equipment with water, harden material can only be removed mechanically.

Estimating

Supply

Expanmortar HS : 20 kg Bag.

Coverage

Yield and coverage rate listed below are approximate, and will be wholly dependent upon the general substrate condition. It is recommended, that a site trials over a typical area are conducted to determine the likely usage/coverage rates for a particular substrate.

Expanmortar HS : 1.0 m² at 10 mm thick
(approximately 10 liters
per 20 kg bag)

Limitations

- Expanmortar HS should not be used when the ambient temperature is below 5°C and falling.
- Expanmortar HS should not be mixed with hot water.
- Expanmortar HS should not be exposed to running water either during application or prior to final set.

Storage

Shelf life

Expanmortar HS has a shelf life of 12 months, if kept in a dry environment, in its original packing. If stored in conditions of high temperature and/or humidity, the shelf life may be reduced to as little as 4 months.

Precautions

Health and safety

Expanmortar HS contain alkaline cement which, can be harmful to the skin, avoid contact with skin.

During mixing and use, avoid inhalation of powder and contact with the skin or eyes. Wear suitable protective clothing - eye protection, gloves and respiratory equipment (particularly in confined spaces).

The use of barrier creams to provide additional skin protection is also advised. In case of contact with the skin, rinse with plenty of clean water, then cleanse thoroughly with soap and water.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

Fire

Expanmortar HS, is non-flammable and thus presents no fire hazard.

For further information, please refer to the Product Material Safety Data Sheet for Expanmortar HS

***Denotes the trademark registered**

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