



Expanmortar* TG

Single component medium-weight concrete and masonry reinstatement mortar for use in hot climates

Uses

Expanmortar* TG is suitable for hand application to repairs where light to medium load bearing is required. Typical applications would include, but not be limited to, the following:

- Vertical and overhead repairs to restore 'covercrete'.
- General concrete and masonry repairs.
- Voids greater than 10 mm deep.
- Repairs to honeycombing.
- Larger scale repairs where formwork cannot be erected.

Advantages

- High build achievable without formwork - saving time and expense of multiple applications
- Formulated for use in hot climates
- Can be applied by the wet or dry spray process for fast exceptionally high build repairs with enhanced characteristics
- Low-permeability provides good protection against carbon dioxide and chlorides
- Excellent bond to concrete substrate
- Shrinkage compensated
- Contains no chloride admixtures

Description

Expanmortar* TG is supplied as a ready to use blend of dry powders, which requires only the addition of clean water to produce a highly consistent, lightweight repair mortar suitable for general purpose concrete and masonry repairs.

Properties

The following typical results were obtained at a water to powder ratio of 0.18 and temperature of 20°C.

Test method	Typical result
Compressive strength (BS 1881 Pt.116)	: 40 N/mm ² at 7 days : 50 N/mm ² at 28 days
Slant shear bond strength to concrete (BS 6319 Pt.4)	: 25N/mm ² at 28 days
Water absorption ISAT (BS 1881 Pt. 5)	: 0.18 ml/m ² /sec at 10 mins. 0.06 ml/m ² /sec at 2 hours
Coefficient of thermal exp.	: 7 to 12 x 10 ⁻⁶ / °C
Setting times (BS 5075)	: 2-3 hours - Initial set 4-6 hours - Final set
Fresh wet density	: 1850 kg/m ³

Note : The low permeability of Expanmortar* TG retards chemical attack in aggressive environments. The cured mortar is resistant to acid gases, chloride ions, oxygen and water. For specific data regarding chemical resistance, contact the local Expanchem Fospak office.

Design criteria

Expanmortar* TG is designed for vertical, overhead or horizontal use without the use of formwork. Attention to the basic design criteria given below should ensure that the full benefits of this technology are gained in use:

(i) Recommended limits for a single application are:

Minimum applied thickness	: 10 mm
Large overhead sections	: up to 20 mm thick
Vertical sections	: up to 50 mm thick
Small pockets or horizontal	: up to 100 mm thick
Maximum length	: up to 3 m

(ii) In situations where a substrate/repair barrier is required, or enhanced bond strength/working time is required, or where the substrate is likely to be permanently wet or damp (e.g. seawalls, quays etc.), Expanbond EP epoxy bonding agent should be used.

(iii) Water addition = 3.60 liters / 20kg bag under no circumstances should part bags be used or additional water be employed. Either of these two actions will adversely affect material performance, automatically invalidating Expanchem Fospak standard product guarantee.

Method Statement

Refer to your local Expanchem Fospak office for the method statement specifying surface preparation, priming, mixing, application and cleaning methods.

Estimating

Supply

Expanmortar* TG : 20kg bags

Coverage

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

Expanmortar* TG : 12.64 liters / 20 kg bag



CONSTRUCTION CHEMISTRY

Limitations

Expanmortar* TG should not be used when the ambient temperature is below 5°C and falling.

Expanmortar* TG should not be part mixed.

Expanmortar* TG should not be exposed to running water either during application or prior to final set.

Water ponding is not recommended for curing.

Storage

Shelf life

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

Health and safety

Expanmortar* TG contains cement powders which, when mixed with water or upon becoming damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of the dust 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.

Precautions

Fire

Expanmortar* TG is non-flammable and thus presents no fire hazard. For further information, please refer to the Product Material Safety Data Sheets.

* Denotes the trademark registered.

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