



Expanmortar* LA

Single component free flowing low alkali micro concrete

Uses

The high fluid nature of Expanmortar* LA obviates the need for compaction and vibration and are most suitable for:

- Repair zones with restricted access or congested reinforcement.
- Reinstatement of large, structural sections of concrete.
- Repairs to concrete effected by alkali-silica reaction.
- Areas where excellent chloride and carbon-di-oxide resistance is required

Advantages

- Dual expansion system compensates for shrinkage in the plastic and hardened states
- Low alkali content minimizes risk of alkali-silica reaction
- Exceptional bond to concrete substrates without independent primer
- Suitable for placement by pumping or pouring techniques into restricted locations
- Self-compacting nature eliminates honeycombing and displaces air without vibration
- High strength and low permeability provide maximum protection against carbon-di-oxide and chlorides
- Pre-bagged to overcome site-batched variations only the site addition of clean water is required
- Contains no chloride admixtures

Description

Expanmortar* LA is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a free-flowing, shrinkage compensated micro-concrete suitable for large volume concrete repairs at nominal thicknesses in excess of 50mm.

Specification

The fluid repair system (micro-concrete) shall be Expanmortar* LA, a single component, low-alkali cement-based blend of powders to which only the site-addition of clean water shall be permitted. The micro-concrete shall exhibit compressive strength of not less than 45N/mm² at 7 days and not less than 60N/mm² at 28 days, Tensile strength of not less than 5 N/mm² at 28 days and Flexural strength of not less than 7N/mm² at

Properties

The following typical results were obtained at water to powder ratio of 0.15 and temperature of 20°C.

Test method	Typical result
Permeability (DIN 1048 Part 5)	: < 10 mm
Flexural strength (BS 1881: Pt 117)	: > 7 N/mm ² at 28 days
Compressive strength (BS 1881 Pt.116 1)	: > 35 N/mm ² @ 3 days > 55 N/mm ² @ 7 days > 65 N/mm ² @ 28 days

**Initial Water Absorption : 0.05ml/(m².sec)
Test (BS 1881 Pt. 208)**

Note:- The low permeability of Expanmortar* LA retards chemical attack in aggressive environments. The cured micro-concrete 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* LA is designed for large volume repairs typically in excess of 50mm deep. The product can be applied at sections generally upto 150 mm thick although greater thicknesses may be achievable dependent on the repair geometry. Attention to the basic design criteria given below should ensure that the full benefits of this technology are gained in use:

(i) Water addition 2.70 - 3.20 ltr/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's 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.



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Estimating

Supply

Expanmortar* LA : 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.

Yield

Expanmortar* LA : 10 liters / 20 kg bag

Limitations

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

Expanmortar* LA should not be part mixed.

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

Storage

Shelf life

Expanmortar* LA 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* LA will be reduced to as little as 4 months.

Precautions

Health and safety

Expanmortar* LA 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.

Fire

Expanmortar* LA 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.



CONSTRUCTION CHEMISTRY

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