Techno Bond LX

Polymer bonding aid and mortar additive bonding agent for old and new concrete

Uses

- For improving the physical properties of cementations mixes.

Typical uses include, but are not limited to, the Bonding concrete repair mortars.

- Floor toppings and screeds.
- Waterproof renders and cementations slurries.
- Bonding agent for slip bricks, ceramic tiles, etc.

Advantages

- Single component liquid can be easily gauged as required.
- Improves cohesion and workability.
- Improves mortars to provide waterproof repairs, renders and toppings which are highly resistant to freeze/thaw cycling.
- Improved tensile and flexural properties allow thin applications.
- Excellent bond to concrete, masonry, stonework, plaster and block board.
- Contains no chloride admixtures.

Description

Techno Bond LX is a modified styrene emulsion which is supplied as a ready to use white liquid. It is designed to improve the quality of site-batched cementations mortars and slurries. Being resistant to hydrolysis, it is ideal for internal and external applications in conjunction with cement properties.

Design criteria

The application parameters for mortars modified by the use of Techno Bond LX will differ depending on the actual mix design used, but should always be subject to a minimum applied thickness of 6 mm.
Techno Bond LX modified mortars can generally be applied in sections of up to 40 mm thickness in horizontal locations and 15 mm in vertical locations, without the use of formwork. In overhead locations the thickness achievable without the use of formwork is largely dependent on the profile of the Substrate.

Instructions for use

Preparation

Substrate priming

The substrate should be thoroughly soaked with clean water and any excess removed prior to commencement. A slurry primer should be prepared consisting of 1 volume Techno Bond LX to 1 volume clean water to 3 volumes fresh cement. To obtain a smooth consistency, the cement should be blended slowly into the premixed liquids. The slurry primer should be stirred frequently during use to offset settlement.

Mix designs

A wide range of mix designs is achievable using Techno Bond LX
Typical designs are detailed below:

1. Patching and repair mortar

(Recommended thickness: 6 mm to 40 mm)
50 kg Ordinary Portland cement
150 kg sand
10 liters Techno Bond LX
8 liters (approximately) clean water

2. Heavy-duty floor screed

(Recommended thickness: 10 mm to 40 mm)
50 kg Ordinary Portland cement
75 kg 3 to 6 mm granite chips
75 kg grade C/M sharp sand
10 liters Techno Bond LX
6 liters (approximately) clean water
The screed should be of a semi-dry cohesive consistency.

3. Render

(Recommended thickness: 6mm to 9mm)
50 kg Ordinary Portland cement.
150 kg sand 10 liters Techno Bond LX.
6 liters (approximately) clean water
The render should be of a semi-dry cohesive consistency.

4. Bonding mortar for slip bricks, tiles, etc

(Recommended thickness: 6 mm to 40 mm) 50 kg Ordinary Portland Cement
125 kg sand
10 liters Techno Bond LX
7 liters (approximately) clean water
Water is adjusted to give a firm mortar.

Mixing

Care should be taken to ensure that Techno Bond LX mortars are thoroughly mixed. Mixing in a suitably sized drum using an approved spiral paddle in a slow speed Continue mixing up to a maximum of 5 minutes until a smooth and fully homogeneous consistency is achieved with the required workability and application properties. It is critical that allowance is made for the moisture content of the sand and aggregate, particularly where stored on site.

Application

For application to all surfaces, Techno Bond LX mortars, toppings and renders must be well-compacted on to the primed substrate by trowel. It is frequently beneficial to work a thin layer of the mortar into the slurry primer and then build the mortar on to this layer. Exposed steel reinforcement should be completely encapsulated by the mortar.
Techno Bond LX mortars can be applied at a minimum thickness of 6 mm and up to 40 mm thickness, dependent on the location and

configuration of the repair zone. Refer to the recommended thicknesses shown in the 'Mix design' section above.

Finishing

Techno Bond LX mortars can be finished with a steel, plastic or wood float, or by a damp sponge technique, to achieve the desired surface texture. The completed surface should not be overworked.

Curing

Techno Bond LX mortars, toppings and renders are cement-based. In common with all cementations materials, they must be cured immediately after finishing in accordance with good concrete practice.

Estimating

Supply

Techno Bond LX	1:4 :20 and 200 liter drums

Coverage

Techno Bond LX : Refer to mix designs

Techno Bond LX
(As slurry Primer) : Approx. 2 to 3 m^2/liter

Note

The actual usage of Techno Bond LX will depend on the mix design used. The coverage figures for liquid products including the Techno Bond LX slurry primer are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Storage

Shelf life

All products have a shelf life of 12 months if kept in a dry store in the original, unopened bags or packs.

Storage conditions

Store in dry conditions in the original packs. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced. Techno Bond LX should be protected from frost.

Modern Technologies for Construction Chemicals

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