ALCOLIN PERMOCRETE STRUCTURAL REPAIR MORTAR

Description

Alcolin Permocrete Structural Repair Mortar is a cementitious mortar comprising of a blend of course and fine aggregates developed specifically for the repair of structural defects found in concrete. It is rapid setting, develops high end strength and is shrinkage compensated, and when used in conjunction with Alcolin Permocrete Slurry Kit, provides exceptional adhesion to concrete and masonry materials.

Features & Benefits

- Sets in 6 hours - repair jobs can be finished quickly
- Low shrinkage - fills cracks and holes up to 100mm deep
- Good anti-slump / non-sag properties - easily applied to vertical surfaces
- Versatile - suitable as a pourable or ramming mortar
- High strength - suitable for durable repairs to concrete
- Shrinkage compensated - resists cracking on setting

Applications

Permocrete Structural Repair Mortar is designed specifically for the repair of structural defects found in concrete. It can be used as either a pourable or ramming mortar by changing the water ratio. It is suitable for both horizontal patching (e.g. floors), and vertical overhead patching and can be sprayed or trowelled. When used in conjunction with Alcolin Permocrete 1K Primer, metal bar reinforced concrete repairs are simplified and repair time is reduced when compared to other priming and repair systems. Suitable for interior and exterior applications.

Adhesion

Excellent adhesion to cement and concrete surfaces when used in conjunction with priming systems such as Alcolin Permocrete Slurry Kit or Alcolin Permocrete 1K Primer.

Limitations

- Do not apply externally when there is a risk of rain or frost within six hours after application.
- Working in direct sunlight, temperatures exceeding 35°C and strong winds will result in premature drying of the product. Working in temperatures below 10°C will retard setting.
- Not suitable for application onto friable and chalking surfaces.
- Not suitable for use in areas subject to rising damp or in permanently wet conditions.
- Do not apply over structural or movement joints.

Safety instructions

Alcolin Permocrete Structural Repair Mortar is non-toxic, however the cement component is alkali in nature, and it is therefore advisable to wear rubber gloves in order to avoid direct skin contact. In the event of skin or eye contact, rinse thoroughly and immediately with water. Seek medical assistance if irritation or discomfort persists. Keep out of reach of children! Refer to our Safety Data Sheets for further toxicological information and comprehensive handling instructions.

Surface preparation

- Site conditions should comply with the latest SABS Standards editions: SABS 021 (Code of Practice for the Waterproofing of Buildings including damp-proofing and vapour barrier installation), SANS 10109-2:2004 (Concrete Floors Part 2: Finishes to concrete floors).
- All edges to be repaired must be square cut to a minimum depth of 10mm
- Surfaces must be firm and free of dust, mould oil, grease, wax polish and organic growth
- **Cement-based plaster and screeds** must be at least 2 weeks old and concrete surfaces at least 4 weeks old to avoid excessive movement due to shrinkage.
- **Painted, Gypsum plastered and Bitumen Coated** surfaces need to be cleaned either chemically or sand blasted (preferable). If chemicals have been used, surfaces should be thoroughly flushed to remove their traces. If compressed air is used for sand blasting etc. ensure there is no oil contamination.
- **Metal surfaces and rebar** should be free from corrosion and for the best results, should be coated with at least a 2mm coating of Alcolin Permocrete 1K Primer which contains corrosion inhibitors.
- **Smooth surfaces** such as power floated and off shutter concrete, any laitance must be roughened/removed by means of sand blasting or acid wash in order to provide adequate keying. This should be followed by rinsing thoroughly with clean water. With the exception of metal surfaces, always apply a coat of Alcolin Permocrete Slurry Kit to a thickness of at least 2mm before applying the Permocrete Structural Repair Mortar.

Note: If there are any doubts about the suitability of the substrate, condition tensile pull off tests should be performed.

Directions for use

1. When mixing, use a mechanical mixer such as a slow electric drill fitted with a suitable paddle. Excessive high speed mixing will aerate the product resulting in defects and a weaker mortar repair.
2. For a ramming mix add ~5L water and for a flowable mix add ~6L water to a bucket and with continuous stirring, slowly add 20kg of Structural Repair Mortar to the bucket.
3. Mix thoroughly until a paste type consistency is formed.
4. Allow to stand for approximately 5 minutes.
5. Remix immediately before use.
6. If the mix is a little stiff, a small amount of water can be added to adjust the working properties.
7. Use a clean rust free smooth edge trowel, spatula or float to apply the Alcolin Permocrete Structural Repair Mortar ensuring full coverage of the substrate is always achieved. This should be accomplished with as few strokes of the trowel as possible. Over troweling will result in surface defects and blemishes.
8. Do not attempt to rework or tamper with any partially set product.
9. The product must be allowed sufficient setting time before final profiling.
10. The surface may be lightly wetted prior to final polishing/smoothing using the trowel (do not over wet).
11. For a smooth off shutter appearance, the repaired surface may be skimmed with a thin layer of Alcolin Permocrete Fairing Compound.

Cleaning

Tools can be cleaned with water and soap when mortar is still wet. Allow any unused product to dry before discarding in a suitable container.

Storage stability

Alcolin Permocrete Structural Repair Mortar must be kept in normal, dry conditions and protected from damp. The product has a shelf life of approximately 9 months if stored as described above, in its original sealed packaging.

Product packaging

20kg bag

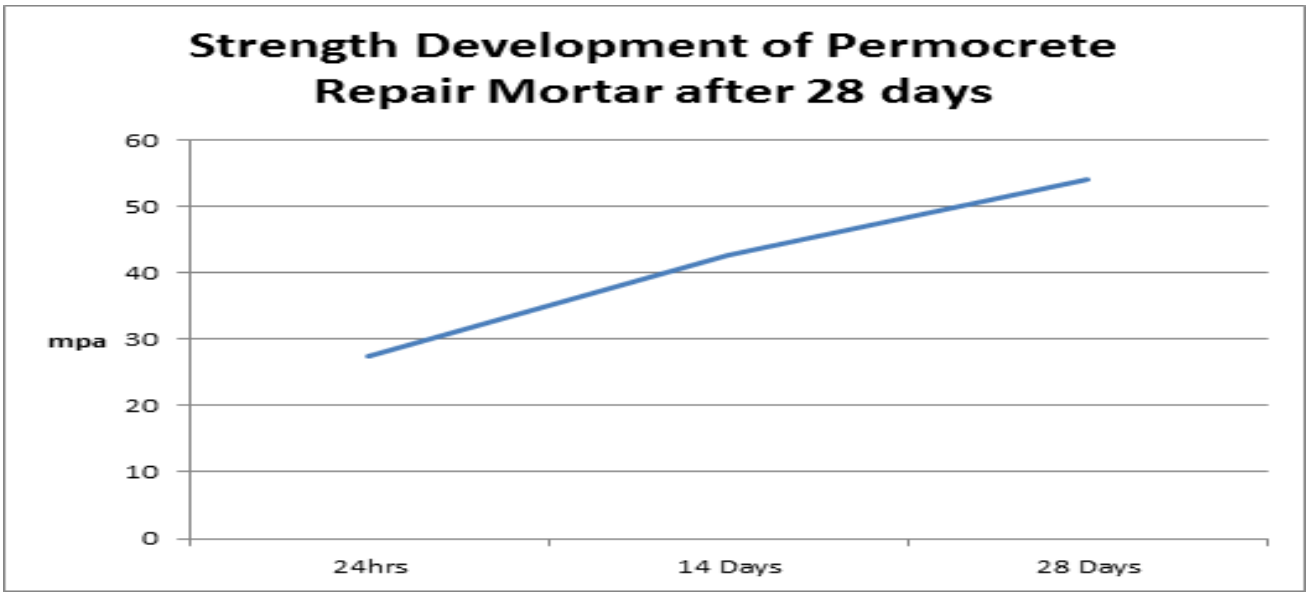
Product data

I. Physical data

Type	Cement mixture
Appearance	Fine grey powder
PH	~11
Solids	100%

II. Application data

Pot life	40-60 minutes at 25°C and 50% humidity
Initial set	~4-5 hours at 25°C and 50% humidity
Final set	~6 hours at 25°C and 50% humidity
Typical compressive strength after 28 days	50-55mpa
Typical flexural strength after 28 days	6-7mpa



Time	24hrs	14 Days	28 Days
Repair Mortar compressive strength: mpa	27.35	42.57	54.1

The above information is only offered, as a guide to the use of this product. Furthermore, users should satisfy themselves that it is suitable for their needs. Since we have no control over the conditions under which it is used, we cannot accept responsibility for problems caused by the use and/or application of this product.

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