

Product Data Sheet
Edition 07.2008
Identification No. RC - 5



Kemrepair HR

High heat resistance performance repair mortar

Description

KEM Repair HR Cement based premixed mortar as a sole binder; therefore it has all the Vicalpes cement properties. The mix design includes silica quartz fillers, graded high purity sands and rheology adjustors. The mix contains no chlorides, ferrous metal or other deleterious materials. The product is pre-blended and ready for mixing on site to produce a non-shrink, easy to apply, homogenous mortar which rapidly hardens to a strong bonding and impervious material ideal as a Heat Resistance repair mortar .

Where to use

Can be easily used to line vertical, horizontal or overhead substrates whether the application is interior or exterior. Kemrep VC linings are resistant to Heat application on chimneys and silos

- Foundations.
- Pointing and laying Heat resistance bricks.
- Concrete Silos.
- Chimneys
- Fast concrete repair.

Advantages

- Resists heat action up to 250- 300 C
- Decreased permeability as well as
- Continuous sealing of cracks and voids by autogenously healing
- Resists alkalis and acids of PH as low as 4.
- Resists carbonation providing excellent protection to steel reinforcement.
- Formulated for short and long term efficiency – Life time.
- Non toxic, suitable for food industry and potable water.
- Excellent adhesion on concrete substrates.
- Unlike sheet linings, it doesn't need surface smoothing before application.
- Doesn't need any protection against abrasion or U.V. after application.

Properties & Standards:

Color	Grey
Setting time	20- 30 min. @ 20o C
Fresh density	2.1 -2.2 Kg/liter
Heat Resistance	250- 300 °C

Compressive Strength (MPa)

3 days	7 days	28 days
16	20	40

Water to powder ratio = 0.15 by weight

How to use

Surface preparation

All substrates should be clean, free from dust, loose particles, grease, oil or any other foreigner matter.

All concrete surface defects (Honey combs, Rock pockets, air voidsetc.) should be repaired following a proper repair procedure, using Kemrep VC Mortar, water is to be added to the dry mix while mixing with gloved hands to a mastic consistency. Before applying Kemrep VC Mortar, all surfaces should be saturated with water with no running water (saturated surface dry). No bonding agent is required

Mixing

- In a suitable container add 3.50 – 4.0 liters of potable water and start mixing with a slow speed drill (350-450) rpm while adding gradually the content of a 25 Kg bag of Kemrep VC for enough time to produce a homogeneous mix.
- Mechanical mixing is essential for a rapid and homogeneous mix. Forced action pan mixers or free fall
- Mortar mixers are suitable.

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**Application**

- Kem Rep HR Mortar will be applied in two layers.
- The first layer (about 7mm thickness) should be pressed firmly with the trowel while trowel ling to insure a good compaction and bond with the substrate.
- The second layer (about 5mm thickness) will be applied immediately after the first layer and trowel finished as usual.
- If time is elapsed between the two layers, the first one should be wetted before the application of the second layer.
- Once the applied lining is hard, it should be cured by means of water for at least 24 hours, or by using a Curing compound.
- The average lining thickness will be 12 mm with a tolerance of ± 2 mm for the two layers.

Theoretical Coverage:

After mixing with water, the 25 Kg bag yields about 12.75 liters of mortar covering 1.0 m² of about 12.5 mm Thickness achievable in two layers on an even surface.
Allowance should be made for any possible wastage or surface unevenness when estimating

Packaging:

Supplied in 25 Kg plastic bags.

Shelf life & Storage:

KEM Rep HR has a shelf life of 6 months if stored in normal temperature and closed shaded dry area in Undamaged original packing.

Health and Safety

- Keep out of reach of children.
- Keep container tightly closed.
- Not for internal consumption.
- For industrial use only.

Additional Information

PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure. PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range.

For our customers' satisfaction, PROKEM extends technical services to include after sales support to assist users in a proper handling of our products.