HIND PATCH R

SINGLE COMPONENT READY TO USE FIBER REINFORCED STRUCTURAL REPAIR MORTAR



DESCRIPTION

Hind Patch R is a single component, polymer modified, fiber reinforced, cementitious based thixotropic structural repair mortar. It conforms to **EN1504-3/R4**.

USES

It is used for repairing of reinforced concrete elements protecting it from sulphate and chloride attack. Can be used to repair underground and marine concrete structures. It is used for smoothening of concrete surface prior to application of waterproofing polymer coatings. High strength concrete elements can also be repaired with **Hind Patch R**. It is an ideal mortar for repairing of tie-rod holes used for fixing of shuttering.

ADVANTAGES

- Easy to use only water to be added and applied.
- Excellent bonding to concrete & steel.
- Non-sagging/thixotropic properties make it an ideal compound for overhead applications.
- Non -Shrink.
- High strength and waterproof.
- It high resistant to oils, sulphate and chloride attacks and freeze-thaw cycle.

APPLICATION

Substrate Preparation

The concrete surface to be properly cleaned and it should be sound and dry. It should be free of frost, curing compound membrane, waterproofing treatments, oil, laitance, other containments and dust. The area to be repaired should be free from all loose particles and properly saw-cut perpendicular to the repair surface. Worn out corroded reinforcement to be replaced with new ones and cleaned properly. The surface to be pre-wetted before application of **Hind Patch R**.

Mixing:

Adequate quantity of clean water is taken in a container and properly gauged. **Hind Patch R** is added into the water slowly and continuously mixed with a electrical mixer (400-600 rpm) fitted with a paddler for **4-5 minutes**, so that an uniform homogenous mix is obtained. The mix is allowed to rest for 3 minutes so that entrained air escapes out and finally remixed for another **30-40 seconds**.

Mixing Ratio:

- (a) If mixing is done using **electrical mixer**, then add upto **150 ml** of water slowly to **1Kg Hind Patch R** without using any admixture. Do not add the total water to **Hind Patch R** at a time.
- (b) If mixing is done manually **(by hand)**, then add upto **180 ml** of water and **0.05 to 0.1 % of Hind Plast Super / Hind Plast Super R (by weight of Hind Patch R)** slowly to **1Kg Hind Patch R** to obtain the required consistency. Do not add the total water to **Hind Patch R** at a time.

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Method of Application:

Hind Patch R is now applied on the prepared surface with a steel trowel and that thickness of the mortar should be between 1-4 cm. If the application of the mortar is required to be thicker than further layer is applied by the same process after 24 hours. When the mortar sets initially water is sprinkled on it and is finished with a steel/wooden trowel. Open area applications are to be protected from rain and severe weathering conditions for the first 24-48 hours from the time when repairing gets finished with wet cloth or curing compounds.

Coverage

19.15 to 19.25 Kg/m² to obtain a thickness layer of **1cm**.

Cleaning of Tools - Clean all tools with water. Avoid hardening of the materials otherwise to be cleaned by mechanical abrasion.

PROPERTIES

Aspect	Grey Powder
Mixed Density (W/P Ratio :: 0.150/0.180 : 1)	2.25 - 2.50 Kg/Litre
Pot Life Pot Life	45-60 minutes at 25 <u>+</u> 2°C
Compressive Strength	> 15 N/mm² after 3 days
	> 25 N/mm² after 7 days
	> 40 N/mm² after 28 days
Flexural Strength	6-7 N/mm² after 28 days
Bond Strength to Concrete	> 2 N/mm² after 28 days
Modulus of Elasticity	> 20,000 N/mm² after 28 days
Capillary Water Absorption	< 0.5 Kg.m-2.hour-0.5
Thickness of application	10mm (Min.) 40mm (Max.)
Application Temperature	+5°C to + 40°C
Full Curing at 25°C	28 days
Bond Strength to Concrete Modulus of Elasticity Capillary Water Absorption Thickness of application Application Temperature	> 40 N/mm² after 28 days 6-7 N/mm² after 28 days > 2 N/mm² after 28 days > 20,000 N/mm² after 28 days < 0.5 Kg.m-2.hour-0.5 10mm (Min.) 40mm (Max.) +5°C to + 40°C

Note:

- Higher temperature shortens the curing & working time, lower temperature extends the durations. Ideal Temperature is 250 C and 500 C Relative Humidity.
- Compressive Strength tested using 50mm X 50mmX50mm cube moulds.

SHELF LIFE

12 months from the date of manufacture in unpacked condition. Should be stored in a cool and dry place.

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PACKING

Available in 25 Kg. HDPE Bag

HANDLING PRECAUTION

Hind Patch R is non-toxic and ingestion is to be avoided. If contact with eyes occurs, wash well immediately with water and seek medical advice.

IMPORTANT NOTICE:

Hindcon Chemicals maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products. The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.

Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behaviour can change as per the prevailing conditions at the time of applications. Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use. The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.



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