

MASTER REPAIR

SINGLE COMPONENT, POLYMER MODIFIED NON SHRINK REPAIR MORTAR

DESCRIPTION

MASTER REPAIR is a ready to use polymer modified repair mortar which requires only addition of clean water to produce highly consistent repair mortar. The product is based on blend of Portland cement, graded aggregates, fillers, polymers & additives. The low water powder ratio of the product ensures for better strength development and thus provides long term durability.

FEATURES / ADVANTAGES

- Shrinkage compensated.
- High strength and low permeability provides better durability.
- Contains no chlorides.
- Suitable for internal & external applications.
- High early strength: Ensures rapid installation.
- Iron free: No metallic iron is included in the mix that leads to further deterioration due to rust expansion.
- Factory pre-packed one component ready to use to overcome site batch variations.
- Develops high initial & ultimate compressive strength.
- Easy mixing & handling.

DESIGN CRITERIA

Master Repair is designed for application in section upto 100 mm depth. For larger section the addition of approved aggregates may be required depending on the specific configuration of the repair location.

TECHNICAL INFORMATION

The following values were obtained at water: powder ratio 0.140 at 30°C

- Fresh Wet Density at 30°C : 2200± 50 kg/m³ depending on actual consistency used
- Compressive strength in N/mm², tested on 70.5 mm cubes
 - 24 hrs : Min 10
 - 3 day : Min 27
 - 7 days : Min 35
 - 28 day : Min 50
- Tensile strength :> 4.0 N/mm² at 28 days
- Flexural strength :> 8.0 N/mm² at 28 days
- Free expansion : Unrestrained expansion
- Permeability (DIN 1048 Part 5) :< 10 mm

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DIRECTION FOR USE

SURFACE PREPARATION:

- The substrate should be cleaned & free from loose materials and contaminations such as plasters, oil, paint & grease. The damaged or deteriorated concrete must be exposed to a sound substrate
- Clean the surface and remove loose concrete, any dust, oil, paint, grease etc. Chip unsound concrete within the patch area to a depth of minimum 6mm or whether additional depth is necessary to reach sound concrete.
- The form work should include drainage outlets for pre-soaking and, if beneath a soffit, provision for air venting. The unrestrained surface area of the repair must be kept to a minimum.
- Provision for suitable access points to pour or pump the mix in place.
- Steel should be cleaned to a bright condition if necessary apply a suitable primer
- The repair concrete substrate should be saturated with clean water prior to placing. Free water should be removed prior to placing.
- Requirement of a bonding agent on a well prepared & roughened substrate is generally not required but it depends on the nature of substrate.
- In situation where enhanced bond strength is required to old concrete prime the substrate with Masterbond EP an epoxy bond primer or Masterbond SBR latex depending upon the situation. Allow the bonding agent to reach tacky condition before placing of repair mortar. Consult Choksey's Technical Department for further information.
- Standard curing practices should be adopted as it is a cement based product.

MIXING:

- A mechanical pan mixer or a slow speed drill can be used to mix Master Repair.
- Water approximately 85 to 90% is first placed in the mixer followed by gradual addition of Master Repair. Continue mixing for at least 2-3, add balance quantity of 10 to 15 % of mixing water again mix it for 2 to 3 minutes until a smooth, homogeneous consistency is attained.
- Use 4.2 to 4.3 liters of water per 30 kg bag for a trowelable consistency.
- The water powder ratios may vary depending upon climatic conditions & nature of mortar consistency required.
- For thickness more than 100mm, add 50 to 70 % of 10 mm low water absorption, high density, graded aggregates depending on the specific configuration of the repair location.

CLEANING OF TOOLS & EQUIPMENTS

All equipment's must be cleaned with water immediately after use. Hardened material must be removed mechanically.

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COVERAGE

Each 30 kg bag yields approx. 15.0 to 15.5 liters when mixed with 4.200 liters of water. The coverage figures are given are theoretical- due to wastage factors and the nature and variety of possible substrates, practical coverage may vary.

STORAGE & SHELF LIFE

- Master Repair should be stored on pellets in dry conditions. Should be under cover from direct sunlight or extreme temperature.
- Under these conditions the product will have a shelf life of 6 months from the date of manufacturing

PACKING

Product is available in 30 kg & 10 kg bags.

HEALTH & STABILITY

- Master Repair contains cement powders which, when mixed with water or upon becoming damp, releases alkalis which can be harmful to skin
- During use, avoid inhalation of the dust and contact with the skin or eyes. Wear suitable protective clothes- eye protection, gloves and respiratory equipment (particularly in confined spaces)
- 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.

PRECAUTIONS

- It is non toxic, and non-flammable
- Use gloves while mixing and pouring of Master Repair.
- Splash eyes with plenty of water and medical advice has to be taken if contacted with eyes.

DISCLAIMER

The above information and details herein are based on the tests conducted & experience on application and usage. The user is advised to carry out the test and take trials to satisfy on the suitability of the products and meeting his requirement considering the prevailing conditions prior to apply/ using it on larger area. As the conditions under which the products are used or transported are beyond our control. We would not hold ourselves responsible on its consequential non performance.