

# YASH REPMATE-N



## YASH REPMATE-N

Two component polymer modified cementitious repair mortar

### Description

YASH REPMATE-N is two component polymer modified cementitious repair mortar. YASH REPMATE-N is composed of a blend of dry powders and selected aggregates which when mixed with its liquid polymer produces a high early and ultimate strength repair mortar.

### Applications

- + Repair of all types of structural concrete where high strength and extremely low shrinkage properties are required.
- + For the repair of vertical and overhead elements.
- + As a repair mortar for all structural elements in buildings, water retaining structures, industrial plants, bridges, etc.

### Advantages

- + High early strength development which facilitates quick return to service.
- + Extremely low shrinkage which reduces any potential cracking.
- + Pre-packed, easy to apply.
- + Extremely low permeability providing excellent protection to steel reinforcement and host concrete.
- + Provides maximum protection against carbon dioxide and chlorides.
- + Suitable for internal and external applications.
- + Vapor permeable.
- + Cost effective.

### Method of Use

#### Substrate Preparation

All damaged and deteriorated concrete should be cut back to reach sound concrete and /or to a minimum depth of at least 10 mm. Corroded steel reinforcement should be grit blasted to remove all rust traces.

In case of significant loss in the steel reinforcement cross section, the steel should be replaced. It is essential to remove all concrete form around exposed steel reinforcements by 10 mm.

The perimeters of the repair area should be saw cut to give a minimum depth of 10 mm. The prepared area should be

cleaned thoroughly by brush and / or compressed air.

### TECHNICAL PROPERTIES @25°C

Compressive strength:	> 12 MPa @ 1 day > 30 MPa @ 7 days > 40 Mpa @ 28 days
Tensile strength:	> 2.0 MPa @ 28 days
Flexural strength:	> 7 MPa @ 28 days
Fresh wet density:	2.1 ± 0.1 g/cm <sup>3</sup>
Water absorption: (ISAT) M1	0.06 m <sup>2</sup> /s after 10 Minutes
Bond strength:	> 2.0 MPa
Working time @ 25°C:	60 - 90 min
Chloride ion diffusion coefficient:	5.11 x 10 <sup>-14</sup> m <sup>2</sup> /s @ 28 Days
Co <sub>2</sub> diffusion coefficient:	2.31 x 10 <sup>-9</sup> m <sup>2</sup> /s @ 28 Days
R. Value:	346 m

### Priming

All grit blasted steel reinforcement should be primed within 2 - 4 hours with one or two coats of zinc rich epoxy YASH EPO COAT 174.

Areas to be repaired with YASH REPMATE-N should be soaked with clean water for several hours before applying the repair mortar to ensure damp saturated substrate. All excess water should be removed.

Prior to applying one coat of acrylic bonding agent, YASH BOND SB or YASH PRIMER should be left to become tacky before applying YASH REPMATE-N. In sever conditions, e.g where substrate/repair barrier is required or for submerged or permanently damp conditions, YASH EPOXY BOND 801 epoxy bonding should be used.

### Mixing

To ensure proper mixing, a mechanically powered mixer or drill filled with suitable paddle should be used. (Slow speed drill of 400 - 500 rpm).

# YASH REPMATE-N



Add the entire content of the liquid component to a suitable sized container.

Mix for a short period. Add the entire content of the powder component and mix for about 3 minutes till achieving a complete uniform homogeneous smooth paste.

## Placing and Finishing

Mixed YASH REPMATE-N should be applied on the primed substrates whilst the primer is still tacky. The mixed mortar shall be spread evenly by trowel and tamped well in place with wooden float at thickness of 10 - 25 mm in single application. Greater thickness can be achieved by application of multiple layers.

## Curing

Since YASH REPMATE-N is a cementitious base material, it should be cured in a similar manner as concrete. Curing can be conducted by either using concrete curing compound such as YASH CURE-8 or by using wet hessian sheets and polyethylene.

## Cleaning

All tools should be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically.

## Packaging

YASH REPMATE-N is available in 28 kg packs (13.3 litre) consist of:

YASH REPMATE-N powder: 25 kg bags.

YASH REPMATE-N liquid polymer: 3 kg pack.

## Yield

Approximately 13.3 litters.

## Thicknesses and Size Limitations

YASH REPMATE-N can be applied in a single application for sections up to 25 mm thick. Minimum thickness is 10 mm. For sections deeper than 25 mm, multiple layers can be applied to achieve the required thickness.

YASH REPMATE-N horizontal surface of application area should not exceed 18 m<sup>2</sup>.

## Coverage

1.33 m<sup>2</sup> / 28 kg bag @ 10 mm thickness.

## Storage

YASH REPMATE-N has a shelf life of 9 months from date of manufacture if stored at temperatures between 2°C and 40°C.

If these conditions are exceeded, YASH Technical Department should be contacted for advice.

## Cautions Health and Safety

Since YASH REPMATE-N contains Portland cement and sand, YASH REPMATE-N may cause irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice.

## Fire

YASH REPMATE-N is non flammable.

## More from YASH CONCHEM Products

A wide range of construction chemical products are manufactured by YASH which include:

- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.

Note : We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, Yash cannot accept any liability either directly or indirectly arising from the use of Yash products, whether or not in accordance with any advice, specification, recommendation or information given by us.