



# UltraRep CR

Fine grade single component cementitious mortar for filling blow holes and minor surface defects and cosmetic repairs to new construction

## COVERAGE AND YIELD

A 25 kg bag of **UltraRep CR** will yield approximately 17.30 L of mortar.

One bag of **UltraRep CR** will cover 17.30 m<sup>2</sup> at thickness of 1 mm. This coverage is theoretical and depends upon the surface profile of the substrate and the wastage.

## STORAGE AND SHELF LIFE

UltraRep CR should be stored in dry conditions out of direct sunlight.

The shelf life is 12 months when stored as above.

## HEALTH AND SAFETY

Avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately flush for at least 15 minutes with fresh clean water. Call a physician.

In case of contact with skin wash skin thoroughly.

## DESCRIPTION

**UltraRep CR** is a combination of Portland cement, well graded sands and additives which is fully compatible with precast and in-situ concrete.

When mixed with water **UltraRep CR** produces a smooth cementitious paste ideally suited to filling of small surface defects and blowholes when applied in thin layers of up to 3 mm maximum.

## TYPICAL APPLICATIONS

Blowhole filling and minor surface defects repairs for all concrete elements such as

- Precast and in-situ concrete
- Beams, columns, and walls
- Columns, Piers and cross beams on highway structures

## ADVANTAGES

- Pre-packaged material simply requires mixing with clean water on-site.
- Improved bond to substrate
- Excellent workability for easy mixing, and fast application
- Fully compatible with precast and in-situ concrete
- Compatible with protective coatings

## TYPICAL PROPERTIES

|  |                         |
|--|-------------------------|
| Working time @ 25°C                            | 60 min                  |
| Setting time @ 25°C                            | 90 min                  |
| Density  | ~1850 kg/m <sup>3</sup> |
| Compressive strength @ 28 days<br>ASTM C109-98 | >15 N/mm <sup>2</sup>   |
| Pull off strength ASTM D4541                   | >1 N/mm <sup>2</sup>    |

## APPLICATION GUIDELINES

### Surface preparation

The areas to be treated must be free from all unsound material, i.e., dust, oil, grease, organic growth which would impair adhesion.

### Priming

The prepared surface should be thoroughly soaked with clean water until uniformly saturated without any standing water prior to application of the **UltraRep CR**.

### MIXING

It is recommended that only full bags of 25 kg are mixed. **UltraRep CR** should be mixed by mechanical means with a slow speed drill and spiral paddle.

The required amount of gauging water should be placed in the mixing bucket and the **UltraRep CR** powder added and mixed for approximately 3 minutes until a smooth, creamy



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and lump free consistency is achieved. The water additions shall be a maximum of 7 L per 25 kg bag. A freefall concrete mixer is NOT suitable

## PLACING / APPLICATION

Following mixing the **UltraRep CR** can be applied by brush or the edge of a steel float and scraped into substrate to fill all blowholes and minor surface defects. A fine mist spray of clean water should be applied to the finished surface. The hardened **UltraRep CR** can then be smoothed using sandpaper.

Alternatively, **UltraRep CR** can be applied as a levelling mortar by steel float up to 3 mm thick. The final finishing shall be by steel float or with a damp sponge depending upon the finish required. **UltraRep CR** can be overcoated 24 hours after application.

## CURING

Generally curing is not necessary for cosmetic repair mortars however particular care is required in hot and/or windy conditions. Where a curing membrane is specified, this can be using a curing membrane from the **UltraKure** range.

## WATCH POINTS

During the summer months or where elevated ambient temperatures are encountered the **UltraRep CR** should be mixed using chilled water to ensure that the mixed temperature does not exceed 32°C. Do not add cement sand, or which may affect its properties. Do not add water or fresh mortar to material which has begun to set.

## QUALITY AND CARE

All products originating from the Gulf additive Factory facility in Qatar are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards ISO 9001 and ISO 14001.

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