

Duramortar 520 R

Optima Coatings Duramortar 520 R, is a ready-to-use cement based structural repair mortar in powder form. When mixed with the correct amount of water, it produces a thixotropic, high strength repair mortar, reinforced with acrylic polymer fibres. It possesses excellent bonding characteristics to steel reinforcement and to concrete.

Colours: N/A

PRODUCT USES

- Repairs to reinforced or pre-stressed beams or columns.
- Protection of concrete subject to attack from water containing chlorides and sulphates etc.
- Repairs in industrial areas, especially those containing mineral oils or lubricants.
- Repairs in marine environments.
- Repair of structural members subjected to repetitive loading.
- All types of structural repair which can be applied by trowel or wet spray.

ADVANTAGES

- Shrinkage compensation - reduces the risk of cracking due to shrinkage and ensures full contact with host concrete and load transfer in structural repair situations.
- No primer required - allows rapid application at reduced cost.
- Can be spray applied - rapid application of large quantities.
- Low rebound - when spray applied rebound is minimal, with subsequent saving in material cost.
- Extremely low permeability - gives excellent resistance to attack by aggressive elements.
- Durable.
- Contains no metallic aggregate and is chloride free.

COVERAGE

- One 25kg bag of Optima Coatings Duramortar 520 R with 3.5 litres of added water will yield approximately 12.5 litres of mortar and will cover 1m² at 12.6mm average thickness.

SURFACE PREPARATION

- Ensure all substrates are thoroughly clean, sound, dry and free from any contaminants such as dirt, rust, salt, algae and grease.
- The damaged areas of concrete to be removed should be clearly identified.
- The perimeter of the area should be saw cut to a depth of 10mm and the edges cut as neatly as possible keeping the sides square.
- Feather-edging is not permitted and a minimum thickness of 10mm must be maintained over the whole repair area.
- The substrate should be prepared to provide a rough surface having at least 5mm amplitude at 20mm frequency.
- If reinforcement is corroded ensure that the back of the steel has been exposed.
- Extra protection to the reinforcement can be provided by use of Optima Coatings Optiprime ZR.

APPLICATION

- Optima Coatings Duramortar 520 R is suitable for spray or trowel applications, and in thicknesses up to 50mm in one layer, when applied by hand.
- Concrete surfaces should be thoroughly soaked prior to application of Duramortar 520 R, to ensure a saturated, but surface dry condition.
- When applying by hand, Duramortar 520 R must be forced tightly into the substrate to ensure intimate contact with the

pre-wetted substrate.

- Levelling and initial finishing should be carried using a wooden or plastic float.
- When the material has stiffened to the point where finger pressure lightly marks the surface, a final firm trowelling should be given using the steel float.
- Curing:
 - It is essential to properly cure Duramortar 520 R.
 - Particular care should be taken in hot and windy conditions.
- Cure with a single coat of Optima Coatings Durafinish 800 which is compatible with most subsequent protective coatings, or by covering the surface with properly secured plastic sheeting.

CLEANING

- All equipment should be washed with water immediately after use.

SAFETY PRECAUTIONS

- As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs.
- Treat splashes to eyes and skin immediately.
- If accidentally ingested, seek medical attention.
- Reseal containers after use.
- Use in well ventilated areas and avoid inhalation.

TECHNICAL DATA

Pack size	25kg
Appearance	Grey powder containing micro fine fibres
Fresh Wet Density	Approx. 2195 kg/m ³
Compressive strength at 20°C	3 days > 40N/mm ²
Storage	Store out of direct sunlight, clear of the ground on pallets, protect from rainfall. Avoid excessive compaction.

Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use. To retain sheen and colour consistency of your paint, always make sure that the batch numbers are the same on all paint containers that you purchase.

Updated: August 2013 (this supercedes all previous publications)