

# CONCRETE REPAIR SERIES

## US25 REPAIR MORTAR

### CLASS 25

- HKHA Class 25 Standard
- Low shrinkage
- High early and ultimate strength
- Chloride and carbonation resistance
- High build
- Light weight
- Excellent adhesion
- Environmental resistance

**US MIRACLE US25 Repair Mortar is a high strength, class 25 polymer modified cementitious mortar for interior and exterior repairing of concrete. It is specifically designed for vertical and overhead repair work where a lightweight mortar is required. The mortar can be applied up to 60 mm thick as a single layer for vertical locations and 40 mm for overhead locations. Product complies with British standard and Hong Kong Housing Authority Repair Mortar Class 25 standard.**



#### USAGE

- For repair of spalling.
- For protect embedded steel reinforcement.
- For overhead locations or old concrete.
- For repair of voids and honeycombing.

#### COMPLIED STANDARDS

- Hong Kong Standard : HKHA MTS (2002/2004 Spec. Part D, Cl. 2.1.1 – 2.1.6)
- British Standard : TM 1 – TM 6 is based on BS 6319
- French Standard: French VOC label A+ class

#### SURFACE PREPARATION

- The substrate must be stable and cleaned from any kind of remnants, loose particles, dust, grease, etc.
- The edges of the repair area should be saw cut to a minimum depth of 10 mm.
- Expose and remove all loose rust from corroded reinforcement.
- Before applications, dampen the concrete surface with clean water and allow excess water to drain away.
- Prepare the Bond Coat Slurry primer by mixing 1 part US MIRACLE Mortar Admixture with 1.5 part Ordinary Portland Cement by weight, then stir thoroughly using an electric mixer until a purple homogeneous slurry coat is obtained.
- To apply a thin layer of slurry coat should be brushed onto the concrete surface. It also can be applied by brushing on the exposed steel reinforcement surface. The steel can be protected from rusting by the alkaline environment of the slurry coat. The US MIRACLE US25 Repair Mortar should be applied onto the slurry coat area when the slurry coat is still purple in color, wet, and sticky.

#### MIXING

Adding a 20 kg bag of US MIRACLE US25 Repair Mortar dry powder to approx 3.6 - 4.2 Liters of clean water and mix thoroughly using an electric mixer for 3 - 5 minutes.

The information detailed in this datasheet is liable to modifications from time to time in the light of experience & normal product development. To the best of our knowledge, the technical data contained herein are true. Because it is not possible to give specific instructions for various site conditions or control the applications. We reserve the right to modify the information detailed in this datasheet.

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GRAY ●

#### APPLICATION

The mixture of US MIRACLE US25 Repair Mortar in the pot must be used within 1 hour. For application to all surfaces, US MIRACLE US25 Repair Mortar must be well compacted on to the primed substrate by trowelling or gloved hand. Exposed reinforcement should be completely encapsulated by the mortar. Finish the surface with trowel to achieve the required surface texture. If sagging occurs or thicker section is required, it should be built up in multiple layers as appropriate.

#### CURING

Product has excellent water retention properties, water curing is normally unnecessary. Water curing is only required under extremely hot or dry condition.

#### TECHNICAL DATA

TM1 - Compressive Strength at 28 Days	≥ 25 MPa
TM3 - Tensile Strength at 7 Days	≥ 1.5 MPa
TM4 - Elastic Modulus at 28 Days	9 - 15 GPa
TM5 - Bond Strength at 7 Days	≥ 1.5 MPa
TM6 - Shrinkage (Coutinho Ring Test)	No Crack
TM7 - Figg Air Permeability	≥ 150 Sec
Coverage (For Thickness of 15mm)	Approx. 1.2Kg/m <sup>2</sup> /mm
Packaging	20 kg/Bag
Shelf Life	12 Months

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