

BUILDING CHEMICALS SPECIALISTS

UNIROC MORTAR S

Structural grade polymer modified mortar

USES

UNIROC MORTAR S is used for the reinstatement of large areas of concrete and for localised patch repairs. It is highly recommended for use in locations where high compressive strengths or good abrasion resistance is required. The maximum applied thickness is 3 cm, for bigger thickness the material is applied in several applications.

PRODUCT DESCRIPTION

UNIROC MORTAR S is supplied as ready to use blend of dry powders requiring only the correct amount of clean water to produce a highly consistent, high strength repair polymer modified mortar. **UNIROC MORTAR S** has good thermal compatibility with concrete, excellent water repellent properties and long durability.

Advantages

- High strength.
- High abrasion resistance.
- Very low permeability-prevents carbonation and chlorination.
- Chloride-free.
- Excellent bonding to concrete substrate.
- Shrinkage compensated.

PROPERTIES

When 25 kg of **UNIROC MORTAR S** is mixed with **3-3.5 litres of clean water** at 20 °C the following results were obtained:

Compressive strength:	22 N/mm ² @ 24 hrs 42 N/mm ² @ 7 days 50 N/mm ² @ 28 days
Flexural strength:	10.0 N/mm ² @ 28 days
Wet Density:	2300 kg/m ³
Setting Time:	
Initial set:	3 hours
Final set:	4 hours

APPLICATION

Preparation

The substrate surface must be clean and free of any oil, grease or other contamination. Saw cut or cutback the extremities of the repair locations to a depth of 5 mm to avoid feather edging and to provide a square edge. Break the complete repair area to a minimum depth

of 5 mm up to the sawn edge. Remove all loose scale and corrosion deposits from corroded steel. Abrasive blasting followed by high pressure water cleaning is recommended for cleaning steel bars. The substrate is saturated with water before applying a silicone-based primer. **UNIROC MORTAR S** is applied when the primer has just become tacky. In areas, which are subject to traffic or where permanent dampness is expected, a special bonding agent is recommended.

Mixing

For best results a forced - action mechanical mixer is required for mixing **UNIROC MORTAR S** (400 rpm). For normal applications **3.0-3.5 litres of good quality water** is placed into the mixer and with the machine running, add one full bag of **UNIROC MORTAR S** and mix for 3-5 minutes. Note that always the powder is added to water. At high temperatures, a small additional amount of water may be necessary up to a maximum of 3.5 litres per 25 kg bag of **UNIROC MORTAR S**.

Placement

UNIROC MORTAR S is applied to the prepared substrate by trowel. The mortar is thoroughly compacted on to the primed substrate and around the reinforcement. If sagging occurs during application, the affected section is removed and **UNIROC MORTAR S** is re-applied at reduced thickness. **UNIROC MORTAR S** can be finished using a float or damp sponge to achieve the desired surface texture. **UNIROC MORTAR S** can be applied also by the wet or dry sprayed.

Finishing

UNIROC MORTAR S can be finished using a float or damp sponge to achieve the desired surface texture. The completed surface should not be overworked

Curing

UNIROC MORTAR S must be cured immediately after placement and finishing using a curing membrane. In cold conditions, the finished repair must be protected from freezing.

PACKING AND ESTIMATING

UNIROC MORTAR S is supplied in 25-kg bags. The approximate **yield per 25-kg bag is 12 litres** covering 1.2 m² at 10 mm thickness.

STORAGE

UNIROC MORTAR S has a shelf life of 12 months when kept in a dry store in sealed bags.

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