



Very  
High  
Durability  
Repair &  
Prevention  
System

*From Project to Jobsite*



Certified Quality System since **FEBRUARY 1993**

## BS 38

### FIBRE REINFORCED ONE-COMPONENT REPAIR MORTAR WITH ACCELERATED SETTING, SHRINKPROOF FOR STRUCTURAL CONCRETE REPAIRS

**R4**

CE approved – Certificate n. 1305 - CPD - 0808  
EN 1504-3 Class R4

EN 1504-3  
NORMA EUROPEA

**Description** BS 38 is a 'ready-to-use' product, which, after mixing with water forms a repair mortar which is perfectly workable for application by trowel and normal rendering tools. Once applied and hardened, this product provides high adhesion, exceptional mechanical resistances, and practically without shrinkage. The product does not contain metallic components.

- Vantaggi**
- BS 38 thixotropicity and accelerated setting (10-20 minutes workability) give the advantage of fast application of additional layers and finishing of the repair of the surface in all weather conditions (30-40 minutes after application).
  - The thixotropic qualities of the product make for perfect adhesion and easy application
  - On vertical surfaces, the lower parts of beams, shelves or slabs.
  - No special equipment, mechanical nor other tools, are required for the application.
  - No bleeding
  - Strong adhesion properties to the substrate.
  - Maximum resistance against chemical attack and impermeable to water, even under pressure.
  - Exceptional mechanical resistance.

- Fields of use**
- Repair and resurfacing of damaged concrete substrates
  - Structural repair.
  - For vertical substrates or soffits in general, or in the situation following characteristics are required:
    - The build up of consecutive repair layers in a short timeframe.
    - Easiness of application and finishing
    - Strong and immediate adhesion to the substrate
    - Very low rebound and waste, dimensional stability
    - Optimal physico-mechanical properties

**Method of use** Reveal all rusted steel bars, remove rust and treat with MuCis® Protezione Ferro before applying anything else. Prepare the substrate by high pressure waterjetting or sandblasting to assure good adhesion of the repair mortar by removing all substances which can interfere with adhesion such as oil, grease, dust, deposits etc.

- Saturate the substrate with water till full saturation. Start a few hours before starting the application of the repair mortar.
- Remove all the excess water by sponge or compressed air, prior to the application.
- For degraded substrates, or when possible, apply first by trowel a key coat made with the same material at a slightly more fluid consistence in order to create maximum penetration and consolidation to obtain optima adhesion of the repair material.
- Add the powder to the water until you get the required consistency, mixing well to eliminate all lumps and obtain a homogeneous mix. The mix proportion (25 kg bag of powder and 4 lt water) give medium mortar consistency and workability.
- Prepare the amount of mix required and use within 15 minutes. Do not reuse the product or thin with additional liquid once thickened.
- Once applied, but even not yet hardened, protect the repaired area from drying out. This is especially needed in dry and hot climates or in windy conditions. Optimal results will be obtained when the repair is kept wet during at least 3-5 days.

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BS 38 mono  
pag. 1/2



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- Applications of higher thickness must be performed in several layers to avoid the disruption of the applied product in the 'plastic' phase. The fast setting of the product allows a fast application even at higher thickness.
- For the best repair results in general, it is recommended, certainly for substantial repairs in volume or thickness, to reinforce the repair by means of steel meshes, zinc nets or other, fixed to the original steel reinforcement, or to steel pieces, fixed with BS 38 previously.

**Remarks** Information according to 2003/53/CE :

**Storage :** The product can be kept for at least 12 months if stored in dry and protected conditions, in the original packaging, between +5°C and +35°C.

**Packaging** Bag of 25 kg

**Caratteristiche  
tecniche (valori  
tipici)**

• Compressive strength N/mm <sup>2</sup>	N/mm <sup>2</sup>	45 (28 days)
• Flexural strength		8 (28 days.)
• ELASTICITY MODULUS	N/mm <sup>2</sup>	23.000 (28 days.)
• Adhesion to concrete	N/mm <sup>2</sup>	2,0 (28 days.)
• Pull-out	N/mm <sup>2</sup>	> 15 (28 days.)
• Carbonation in time	8 years mm	2,5
	18 years mm	8
	25 years mm	11
• Resist. to CO <sub>2</sub> penetration	μ	1.200
• Water vapour permeability coeff.	μ	42
• ① Res. FROST/THAW	gr/mq	550
• ② Permeab. to CHLORIDES	Coulomb	820
• Type of mortar		Thixo mortar
• N. components		mono
• Advised layer thickness	mm	10÷35 (steel net)
• Application		hand
• Curing : wet		yes
• Curing : protected		SE
• Typical application		Structural repair
• Setting time		accelerated
• Hardening		accelerated
• Shrinkage compensation		YES
• Consumption	Kg/m <sup>2</sup> /mm	1,85

1 N/mm<sup>2</sup> = 1 MPa = 10,19 Kg/cm<sup>2</sup>

<p>* The formulation for this type of products can be also made with the addition of corrosion inhibitors MuCis®</p> <p>① Freeze and thaw resistance in the presence of salt. SIA 162/1/91 gr/m<sup>2</sup> (&lt; 600 gr/m<sup>2</sup> = very high freeze and thaw resistance)</p> <p>② Chlorides permeability. FHWA/RD/81 (100÷1000 COULOMB = very low chlorides permeability.)</p>	<p><b>SE</b> Depending on the applicative conditions (rain, sun, hot temperatures, humidity)</p> <p> Very High Durability Repair &amp; Prevention Systems</p> <p> Very High Durability Reinforced Concretes</p>	<p> Multiple Corrosion Inhibiting Synergies</p> <p><b>AED</b> Very High Deformation Energy</p>
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**Safety indications** Read carefully the safety indications on the packaging, or consult the relevant Material Safety DataSheet of this product.

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BS 38 mono  
pag. 2/2

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