

ECMAREP 508

General purpose, Non-shrink, Cementitious Microconcrete with Fibre reinforcement

Description and Characteristics

ECMA REP 508 is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a free-flowing non-shrink repair micro concrete which includes synthetic fibers. The material is based on Portland cements, graded aggregates and fillers, and additives which impart controlled expansion characteristics in the plastic state, while minimizing water demand. The low water requirement ensures high early strength and long-term durability. For larger repairs, the mixed ECMA REP 508 may be modified by the addition of 5mm to 12mm clean, graded, saturated surface dry aggregates at site.

Areas of application

For all the casting or formwork concrete applications where high structural values and resistance against ambient or chemical aggression are required (ex. repair of motorway slabs, reinforcements of concrete pipes, reinforcement or repair of desserts, reinforcement of piles through canning, special beams for structural reinforcement, foundation works with very high resistances etc...).

Advantages

- No bleeding or segregation.
- Very high adhesion to the substrate and re-inforcement steel
- Controlled expansion to compensate the hygrometric shrinkage
- Exceptional mechanical resistance
- Resistant to frost / thaw cycling and to the penetration of oil and grease.
- Excellent crack resistance

Application

The unrestrained surface area of the repair must be kept to a minimum. The formwork should include drainage outlets for pre-soaking and, if beneath a soffit, provision for airventing. Provision must also be made for suitable access points to pour or pump the mixed micro-concrete in place.

Defective concrete surfaces must be cut back to a sound base. Smooth surfaces should be mechanically roughened. Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits. It is important to clean the steel to a bright condition. Grit-blasting is recommended.



Properties

Properties	Typical results
Compressive strength @ 28 days	82N/mm ²
Tensile Strength (N/mm ²)	4.5N/mm ² @ 28 days
Flexural Strength	12N/mm ² @ 28 days
Elasticity of Modulus	28KN/mm ² @ 28 days
Pullout bond strength	25N/mm ² @ 28 days (steel bar with improved adhesion)
Resistance to frost/thaw	49.0gm/m ²
Advised thickness	40 – 500mm

Packaging

ECMA REP 508 is supplied in 25Kg HDPE Moisture resistant bag.

Shelf Life

ECMA REP 508 has a shelf life of 6 months if kept in a dry store in unopened condition.

Storage & Handling

Material should be stored in Cool and Dry shade. Also protect it from Direct sunlight. Please avoid stacking of containers and handle carefully during transport.

Safety Precautions

ECMA REP 508 contains chemicals that may cause irritation to the eyes and skin. Goggles, rubber gloves and long sleeves should be worn when working with these products. Read warnings noted on product package and refer to product material safety datasheet (MSDS) prior to use.

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