

MasterEmaco S 750

Shrinkage controlled micro-concrete for all types of structural repairs

MATERIAL DESCRIPTION

MasterEmaco S 750 is a ready to use mixture requiring addition of potable water consisting of dry powders and selected aggregates specially formulated to produce shrinkage compensated consistent, fluid micro concrete.

TYPICAL USES

MasterEmaco S 750 is suitable for the following:

- Repairs requiring high fluidity e.g. heavily congested steel or repairs.
- As a mass infill repair mortar for structural repairs where there is load bearing.
- Soffit repairs where heavy loadbearing is required.
- Repairs to restricted access areas, where use of hand applied mortars would prove impractical.
- Repairs to columns suffering from major loss of section.

SPECIAL FEATURES

User friendly – It is ready to use from the bag, suited to local conditions and easy to apply. Can be hand packed into large voids or cast as a fluid micro concrete, which contains a 6-9mm coarse aggregate.

Enhanced durability – works in tandem with extremely low permeability to prolong effective service life.

COMPATIBILITY

Modulus of repair medium is compatible to that of host concrete.

LIMITATIONS

Do not attempt repairs on a 5°C and falling temperature scale. Avoid excessive heat (35-40°C) Cooling of mix water or covering of area with shade netting may be necessary to reduce heat. The maximum lift should not exceed 300mm unless precautions are taken.

WATER ADDITION

Water added at the following rates per 25kg bag of **MasterEmaco S 750** will give the consistency indicated:

	Water Addition	Yield
Plastic	2.5 litres	12 litres
Flowable	3.5 litres	12.5 litres

COMPRESSIVE STRENGTH DEVELOPMENT (MPA)

Mix	1.5 litres		2.5 litres		3.5 litres	
	Dry	Wet	Dry	Wet	Dry	Wet
1 day	38	-	29	-	>12	-
7 days	76	83	60	57	38	38
28 days	91	95	72	69	52	49
Average cube mass	2450 g		2384 g		2293 g	

APPLICATION PROCEDURE

Preparation:

It is essential that the surface of the concrete to be repaired is sound, clean and uncontaminated. Corrosion must be removed from steel reinforcement before application of **MasterEmaco S 750**. In certain instances where there is a significant loss of section, the steel may have to be replaced.

Defective areas should have a 20mm deep saw cut made around the perimeter. Cut back all defective concrete to a sound base. Feather edging must be avoided. Minimum thickness for repair should not be less than 20mm. Care should be taken to ensure formwork is water-tight and constructed in line with normal concreting practice. The use of formwork tape (Groutex) is recommended in order to eliminate grout loss.

The unrestrained surface of the repair should be kept to a minimum and care should be taken to ensure at least 20mm cover to reinforcement. Soaking prior to placement is essential and provision should be made for drainage outlets.

Where such conditions require the use of an epoxy bonding system, the surface must be clean, dry and coarse aggregate exposed to ensure a sound mechanical key. Either **MasterBrace ADH 1414** or **MasterBrace ADH 2200** may be used, dependant on application. Where **MasterEmaco S 750** is to be poured ensure access is available and a head of pressure can be maintained.

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STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperatures.

Shelf life:

12 months from date of manufacture when stored in undamaged, unopened packaging.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions' Technical Services Department.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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