

MasterCast 111

Emulsion Admixture and Bonding Agent for Concrete and Mortars

MATERIAL DESCRIPTION

MasterCast 111 is an alkali compatible acrylic emulsion, specially modified for use in concrete and cement mortars. The product is a white liquid, which cures to a clear film.

TYPICAL USES

MasterCast 111 may be used as an adhesive, as modifier for thin section repair mortars or to provide concrete with low permeability, increased abrasion resistance and mild acid resistance.

TYPICAL APPLICATIONS

- Bonding repair surfacing.
- Industrial floor repairs and protection.
- Repairs to reservoirs, swimming pools, digesters retaining walls, sumps, columns and beams.
- Improving bond and water tightness of plasters.
- Leveling floors to receive vinyl or tile overlayments.
- Improved washability and chemical resistance of floors in dairies, abattoirs, food processing plants and the like (used in combination with dry shake floor hardeners).

SPECIAL FEATURES

MasterCast 111 is non-toxic, does not discolour and is suitable for mortars subject to ultraviolet exposure.

SPECIAL BENEFITS ARE

- Elimination of need for water cure to achieve strength.
- Elimination of dusting caused by lack of surface cure.
- Adjustment of elastic modulus according to dosage.
- Lowered liquid absorption arresting chemical aggression.

LIMITATIONS

Do not use **MasterCast 111**:

- At below 5°C.
- In extreme temperatures (40°C+), without protection.
- Where aromatic solvents may soften the film.
- Where in service temperature exceeds 100°C.

APPLICATION: PREPARATIONS

Surfaces to be treated must be clean and structurally sound. All dust, grease, oil, laitance or bond breakers must be removed, and concrete substrates thoroughly wetted to reduce water absorption.

APPLICATION: BOND COAT

Mix equal parts of **MasterCast 111** and water, and to this add Portland cement to form a heavy bodied cream like slurry. Spread the bond coat evenly using a stiff fibre brush. Do not leave standing pools. Place overlay before the bond coat dries.

TYPICAL PROPERTIES*

Properties listed are for guidance and are not a guarantee of performance.

Appearance	Whitish liquid
Specific Gravity @ 25°C	1.000 – 1.040
pH Value	7.0 – 9.0

MasterCast 111

Emulsion Admixture and Bonding Agent for Concrete and Mortars

MODIFIED MORTARS OR CONCRETE

Modification is achieved by preparing mortar or concrete with a mixture of **MasterCast 111** and water as the gauging liquid. Ratios of 100 to water vary according to requirements. In general, however the following guide may be used:

Bond Coats	1:1
Thin Repair Mortars ($\pm 10\text{mm}$)	1:3
Thick Surfacing ($\pm 20\text{mm}$)	1:5
Seal Coats	1:2

CURING

MasterCast 111 modified mixes must not be water cured. Water prevents oxygenation and polymerization of the emulsion. Protection with polyethylene sheet or a suitable Master Builders Solutions curing compound is all that is necessary.

PACKAGING

MasterCast 111 is available in 20 litre containers and 200 litre drums.

STORAGE

MasterCast 111 should be stored in cool, dry conditions and protected from freezing.

SHELF LIFE

Shelf life is 12 months properly stored, but lumpy skinned or algae affected materials should be discarded.

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.

DISCLAIMER

The technical information and application advice given in this MB Construction Chemicals Solutions South Africa (Pty) Ltd publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.