

# MasterCast<sup>®</sup> R 3934

Set-retarding liquid admixture specifically designed for use with mortars

## DESCRIPTION

**MasterCast R 3934** is a powerful retarder for use with mortars. It delays the hydration process resulting in controlled extensions to the initial and final setting times. It can be used to improve workability without the addition of extra water, or to allow reductions in the free water content. Due to improved dispersion of the cement particles the process of hydration proceeds under the optimum conditions, leading to improved strength characteristics with or without reduction in free water.

## TYPICAL APPLICATIONS

**MasterCast R 3934** has been formulated to be used in combination with **MasterCast AE 3998** to produce high-quality retarded mortars. Mortars produced using these two admixtures can be used for laying bricks and blocks; for stucco/plaster (scratch and surface coats) and any application where extended workability combined with long-term stable air content is required.

## ADVANTAGES

- Increases compressive, tensile and flexural strength of mortar
- Increases density of mortar reducing permeability and thus increasing durability
- Allows a reduction in free water in the region of 8-12%
- Enables controlled extension of initial and final set

## PACKAGING

**MasterCast R 3934** is available in 210 L drums or 1,000 L IBCs.

## STANDARDS

EN 934-2 Tables 6 and 10  
 ASTM C494: Type B & D  
 BS 5075: Part 1 (superseded by EN 934-2)

## TYPICAL PROPERTIES\*

Appearance	Light to medium red
Specific gravity @ 25°C	1.090
Chloride content	"Chloride free" to EN 934
Freezing point	0°C

## APPLICATION GUIDELINES

**MasterCast R 3934** should be added to the mortar mix during the mixing cycle, at the same time as the water, or the fine aggregates. Never add **MasterCast R 3934** to the dry cement. No extension to normal mixing time is necessary.

Field trials should be conducted to determine the optimum addition rates of **MasterCast R 3934**. As a guide to these trials, a dosage range of 0.2% to 2.0% per 100 kg of cement. Normal recommend dosage rates vary between 0.2% and 1%. Dosages outside this range can be used where improved workability, increased water reduction and/or further set retardation are required.

## EFFECTS OF OVER DOSAGE

A severe over dosage of **MasterCast R 3934** will result in:

- Increased retardation of initial and final set.
- Increase in workability.

Providing the mortar is properly cured the ultimate strength of the will not be adversely affected and will generally be higher than for normal mortar.

## MIXING

**MasterCast R 3934** can be used with all types of Portland cement including sulphate resisting (Type V). For use with other special cements, please contact Master Builders Solutions Technical Department.

**MasterCast R 3934** should not be premixed with other admixtures. If other admixtures are to be used in concrete containing **MasterCast R 3934**, they must be dispensed separately. If in doubt, please consult Master Builders Solutions Technical Department.

# MasterCast<sup>®</sup> R 3934

**MasterCast R 3934** should be dispensed through a proprietary dispenser, such as is available from Master Builders Solutions.

## STORAGE AND SHELF LIFE

**MasterCast R 3934** should be stored in unopened original packing. Store under cover, out of direct sunlight and protect from extremes of temperature. The shelf life is 12 months when stored as above.

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.

## HEALTH AND SAFETY

**MasterCast R 3934** is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information refer to the Material Safety Data Sheet.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

© = Registered trademark of the MBCC Group in many countries.

MBS\_CC-UAE/Cast\_R\_3934\_5\_21

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions 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.

### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

**Master Builders Solutions**  
**Construction Chemicals LLC**  
P.O. Box 37127, Dubai, UAE  
Tel: +971 4 8090800  
[www.master-builders-solutions.com/en-ae](http://www.master-builders-solutions.com/en-ae)

**Disclaimer:** the TUV mark relates to certified management system and not to the product mentioned on this datasheet



A brand of  
**MBCC GROUP**