

MasterCast[®] AE 3998

Liquid air-entraining agent specifically designed for mortars

DESCRIPTION

MasterCast AE 3998 is a liquid ultra-stable 'micro' air-entraining agent, designed to enhance the workability of brick and block laying and plastering mortars. **MasterCast AE 3998** is designed to cope with variations in cement and aggregate sources and quality.

MasterCast AE 3998 may be used to replace the use of lime.

PRIMARY USES

MasterCast AE 3998 is an admixture for mortars that improves the workability of bricklaying and plastering mortars.

ADVANTAGES

- Ultra-stable bubble structure
- Uniform air entrainment
- Compatible with most types of Portland cement and difficult sands.
- Reduced segregation and bleed
- Greatly improved plasticity
- Reduces permeability
- Noncorrosive to embedded metals
- Easier and faster mortar spread
- Reduces incidence of efflorescence in mortar
- Replacement of lime

PACKAGING

MasterCast AE 3998 is supplied in 210 L containers or in bulk.

STANDARDS

BS 4887

TYPICAL PROPERTIES*

Appearance	Milky white
Specific gravity @ 25°C	1.023
Chloride content	"Chloride free" to EN 934
Freezing point	0°C

APPLICATION GUIDELINES

MasterCast AE 3998 should be added directly into the mix at the same time as the water.

Note: The superior plasticising qualities of MasterCast AE 3998 will result in a significant reduction in water demand of any given mix.

The action of **MasterCast AE 3998** is entirely physical. Used in accordance with instructions, it does not significantly affect the setting time or other properties of the mortar.

There is no standard dosage rate for **MasterCast AE 3998** admixture. The exact quantity of air-entraining admixtures needed should be determined by trial mixes. Factors are temperature, cement, sand grading, sand-aggregate ratio, slump, means of conveying and placement, use of extra fine materials such as fly ash and micro silica.

The amount of **MasterCast AE 3998** admixture used will depend upon the amount of entrained air required under actual job conditions. In a trial mix, use 100ml / 100kg of cement and adjust in the light of results obtained. In mixes containing water-reducing, set-controlling admixtures, the amount of **MasterCast AE 3998** needed is somewhat less than the amount required in plain concrete.

MasterCast® AE 3998

MIXING

MasterCast AE 3998 can be used with other admixtures provided these are added separately to the mix. It can be used for all types of Portland cement, including Sulphate Resisting.

ACTION

MasterCast AE 3998 plasticizes the mix with a lubricating effect whilst reducing the amount of water required to achieve the required workability, thus reducing the possibility of drying shrinkage, which can result in cracking and crazing.

SPECIFICATION CLAUSE

All mortar and renders where indicated shall contain **MasterCast AE 3998** mortar plasticiser or similar approved. The plasticiser shall be based on synthetic or sustainable raw materials in an aqueous solution that provides stable and uniformly distributed air bubbles. The admixture shall comply with the requirements of BS 4887.

STORAGE AND SHELF LIFE

MasterCast AE 3998 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 AE 3998 contains no hazardous substances requiring labelling. For further information see 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.

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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.

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