

# MasterRheobuild<sup>®</sup> 1100AE

A high range water-reducing superplasticising admixture for the production of rheoplastic concrete

## DESCRIPTION

The basic components of **MasterRheobuild 1100AE** are synthetic polymers which allow mixing water to be reduced considerably and concrete strength to be enhanced significantly, particularly at early ages. **MasterRheobuild 1100AE** is a chloride free product.

## TYPICAL APPLICATIONS

- Precast concrete
- Low water/cement ratio concrete
- In complicated formwork or with congested reinforcement

## ADVANTAGES

**MasterRheobuild 1100AE** allows the production of flowable concrete, with a low water / cement ratio. Concrete with **MasterRheobuild 1100AE** shows strengths higher than concrete without admixture having the same workability. The increase in strength, especially evident at early stages is maintained through later stages, both in air cured and steam cured processes. Initial and final sets do not change significantly with respect to concrete without admixture.

Due to the reduction in the water / cement ratio, all other properties of hardened concrete improve significantly, namely; lowered permeability, shrinkage and creep, increased workability and modulus of elasticity.

For more detailed information on the influence of superplasticisers on hardened concrete properties, consult your local Master Builders Solutions representative.

## PACKAGING

**MasterRheobuild 1100AE** is available in bulk or 210 L drums.

## STANDARDS

EN 934-2 Tables 3.1 and 3.2  
ASTM C-494 Types A and F  
BS 5075 Part 1 & 3 (superseded by EN 934-2)

## TYPICAL PROPERTIES\*

Colour	Dark brown free flowing liquid
Specific gravity @ 25°C	1.215 – 1.270
pH value	6.0 – 11.0
Chloride content	“chloride-free” to EN 934
Freezing point	0°C

## APPLICATION GUIDELINES

**MasterRheobuild 1100AE** is normally dispensed at a rate of 0.8-1.5 L/100kg of cement. Subject to successful trials, other dosages may be used up to a rate of 3 L/100kg of cementitious material.

## MIXING

**MasterRheobuild 1100AE** should be added to the mix with the gauging water.

No extension to the mixing time is necessary. Never add **MasterRheobuild 1100AE** to dry cement.

Alternatively, when using **MasterRheobuild 1100AE** to produce flowing concrete at site using ready mix trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Mix before discharge for 3 minutes at 10rpm to produce a fully homogenous mix.

When using **MasterRheobuild 1100AE** to obtain very high early strengths, advantage must be taken of its water reducing properties.

**MasterRheobuild 1100AE** is compatible with all types of Portland Cement including SRC and is suitable for use in mixes containing:

- Microsilica (Silica Fume)
- Fly Ash (PFA)
- Ground Granulated Blast Furnace Slag (GGBS)

Note: **MasterRheobuild 1100AE** is not compatible with **MasterGlenium** and **MasterPolyheed** superplasticizers.

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**MasterRheobuild 1100AE** is compatible with **MasterPozzolith**, **MasterLife** and **MasterAir** admixtures.

## Dispensing

**MasterRheobuild 1100AE** is introduced into the mixer together with mixing water. The plasticising effect or water reduction is higher if the admixture is added to the concrete after 50-70% of the mixing water has been added. The addition of **MasterRheobuild 1100AE** to dry aggregate or cement is not recommended.

## STORAGE AND SHELF LIFE

**MasterRheobuild 1100AE** should be stored in closed original container or bulk tank so as to protect from evaporation.

Shelf life is at least 24 months when stored as above.

## HEALTH AND SAFETY

**MasterRheobuild 1100AE** contains no hazardous substances requiring labelling. 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.

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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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