

# MasterRheobuild<sup>®</sup> RMC 80

## High range water reducing / superplasticising concrete admixture

### DESCRIPTION

**MasterRheobuild RMC 80** is a high range, high performance superplasticiser and water reducing agent specifically designed for the production of rheoplastic concrete required for piling etc. **MasterRheobuild RMC 80** disperses and deflocculates cement particles thereby increasing the workability and flowability of the concrete mixes.

### PRIMARY USES

- For all piling applications including C.F.A.
- For the production of flowing concrete.
- To increase workability.
- For hot weather concreting.
- For controlled delays to initial and final setting of concrete mixes.

### TYPICAL APPLICATIONS

**MasterRheobuild RMC 80** is recommended for use wherever the following situations are encountered:

- For piling concrete.
- Concrete containing pozzolanic materials.
- In areas of congested reinforcement where high workability and cohesion are of benefit.

### COMPOSITION

A multi-component admixture based upon high molecular weight polymers and refined lignosulphonates.

### ADVANTAGES

- Effective over high range of cement contents and types.
- Improves pumpability, durability and impermeability.
- Extended slump retention time - maintains workability in excess of concrete produced utilising conventional superplasticisers
- Reduces placing problems in hot weather by improved workability retention in conjunction with controlled setting times.

### ACTION

**MasterRheobuild RMC 80** acts on the cement particles by its powerful deflocculating and sequestering action to retard and maximise the hydration of the cement paste. Its powerful plasticising action results in high workability concrete which is responsive and cohesive. This action enables concrete with low or reduced water contents to be produced.

### PACKAGING

**MasterRheobuild RMC 80** is available in bulk or in 210 litre drums.

### TYPICAL PROPERTIES\*

Colour	Dark brown liquid
Specific gravity	1.200 at 25°C
Chloride content	"chloride free" to EN 934
Freezing point	0°C

### STANDARDS

EN 934-2 Tables 2, 10, 11.1 and 11.2  
ASTM C-494 Types D and G  
BS 5075: Part 1. Retarding / Superplasticising (superseded by EN 934-2)

### DIRECTIONS FOR USE

**MasterRheobuild RMC 80** should be added to the concrete mix during the mixing cycle at the same time as the water. Never add **MasterRheobuild RMC 80** to the dry cement. Alternatively when using **MasterRheobuild RMC 80** to produce flowing concrete at site using transit mixer trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Ensure at least 5 minutes mixing before discharge - minimum drum revolution of 10 rpm - to produce a fully homogenous mix.

### DOSAGE

Field trials should be conducted to determine the optimum addition rates of **MasterRheobuild RMC 80**. The following figures should be utilised as a starting point for these trials.

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## FLOWING CONCRETE

An addition rate of 600 to 800ml per 100kg cement is usually required to produce flowing concrete from a concrete with an initial slump in the range of 50-70mm.

## HIGH STRENGTH, HIGH WORKABILITY CONCRETE:

Using **MasterRheobuild RMC 80** at 750 - 1000ml per 100kg, concrete mixes can be produced with a reduction in water in the region of 10 to 15% and an increase in workability of between 100 to 150%.

## COMPATIBILITY

**MasterRheobuild RMC 80** can be used with all types of Portland cement including Sulphate Resisting and modified cement (Type II). For use with special cements, contact BASF's Technical Services Department.

**MasterRheobuild RMC 80** should not be premixed with other admixtures. If other admixtures are to be used in the concrete containing **MasterRheobuild RMC 80**, they must be dispensed separately. Contact BASF's Technical Services Department for further advice.

## EFFECTS OF OVER DOSAGE

A severe over dosage of **MasterRheobuild RMC 80** will result in the following:

- Retardation of initial and final set.
- Increase in air entrainment.
- Increase in workability.

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. The effect of over dosage will be exaggerated with SRC cement.

## DISPENSING

**MasterRheobuild RMC 80** should be dispensed through a proprietary dispenser, such as is available from MBCC. Details available upon request.

## SAFETY PRECAUTIONS

**MasterRheobuild RMC 80** contains no hazardous substances requiring labelling. For further information, refer to material safety data sheet.

## STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is up to 2 years 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 MBCC's Technical Services Department.

## NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local MBCC representative. MBCC reserves the right to have the true cause of any difficulty determined by accepted test methods.

## QUALITY AND CARE

All products originating from MBCC's 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, ISO 14001 and OHSAS 18001.

\* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC-Group in many countries.

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## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MBCC 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 MBCC either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MBCC, are responsible for carrying out procedures appropriate to a specific application.