

# MasterRheobuild<sup>®</sup> 857K

## High range water reducing superplasticiser

### DESCRIPTION

**MasterRheobuild 857K** is formulated from synthetic polymers specially designed to impart rheoplastic qualities to concrete.

A rheoplastic concrete is a fluid concrete with a slump of at least 200 mm, easily flowing, but at the same time free from segregation and having the same water/cement ratio as that of a low slump concrete (25mm) without admixture.

**MasterRheobuild 857K** is chloride free.

### ADVANTAGES

**MasterRheobuild 857K** considerably improves the properties of fresh and hardened concrete.

### PRIMARY USES

**Mixes containing GGBS or microsilica**

- Mass concrete pours
- Ready mixed concrete
- Pumped concrete
- Casting in hot climates

To obtain:

- High workability for longer periods
- Lower pumping pressure
- Delayed setting with longer workability
- Higher ultimate strengths
- Reduced permeability
- Improved durability

### PACKAGING

**MasterRheobuild 857K** is available in bulk or in 210 litre drums.

### STANDARDS

EN 934-2 Tables 11.1 and 11.2  
 ASTM C-494 Type B, D and G

### TYPICAL PROPERTIES\*

Colour	Dark brown liquid
Specific gravity	1.240 at 25°C
Chloride content	"chloride-free" to EN 934
Freezing point	0°C

### APPLICATION GUIDELINES

#### DOSAGE

Optimum dosage **MasterRheobuild 857K** should be determined in trial mixes. As a guide, the following dosages are recommended as a starting point for any trial. In normal concrete a dosage of between 0.8-2.0 litre / 100kg total cementitious material. In a high performance, low water cement ratio concrete, a dosage of between 1.5-2.5 litre / 100kg total cementitious material. Dependent upon mix requirement, it is possible to use a higher dosage of **MasterRheobuild 857K** without causing any adverse effects upon the concrete.

Please consult Master Builders Solutions Construction Chemicals Technical staff for further information.

#### COMPATIBILITY

**MasterRheobuild 857K** is suitable for concrete mixes containing all types of portland cement and cementitious materials such as:

- Microsilica (Silica Fume)
- Fly Ash (PFA)
- GGBS (ground granulated blast furnace slag)

#### DISPENSING

**MasterRheobuild 857K** is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect and water reduction are higher if the admixture is added to the concrete after 50-70% of the mixing water has been added. The addition of

**MasterRheobuild 857K** to dry aggregate or cement is not recommended. Automatic dispensers are available.

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## WORKABILITY

**MasterRheobuild 857K** ensures that rheoplastic concrete remains workable in excess 3 hours at +20°C.

Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot and dry climates.

## STORAGE

**MasterRheobuild 857K** must be stored where temperatures do not drop below +5°C. If the product has frozen thaw and agitate until completely reconstituted. Store under cover, out of direct sunlight and protect from extremes of temperature.

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

**MasterRheobuild 857K** 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.

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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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