

# MasterRheobuild<sup>®</sup> 850

High range, water-reducing superplasticiser for rheoplastic concretes

## DESCRIPTION OF PRODUCT

**MasterRheobuild 850** 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 200mm, easily flowing, but at the same time free from segregation and having the same w/c ratio as that of a low slump concrete (25mm) without admixture.

**MasterRheobuild 850** is chloride-free.

## ADVANTAGES

**MasterRheobuild 850** considerably improves the properties of fresh and hardened concrete.

## PRIMARY USES

- Microsilica concrete
- Mass concrete pours
- Ready-mixed concrete
- Long-distance transport
- Pumped concrete
- Casting in hot climates

## TO OBTAIN

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

## COMPATIBILITY

**MasterRheobuild 850** is compatible with all cements and most air-entraining agents meeting the ASTM standards.

The addition of **MasterRheobuild 850** and **Master-Air 111** (air-entraining agent) to concrete is recommended where it is required to withstand freezing and thawing cycles

## PACKAGING

**MasterRheobuild 850** is available in 1000 ltr.

## TYPICAL PROPERTIES

Colour: Dark brown liquid
Specific gravity: 1.200 -1.250 at 25°C
Air-entrainment: Maximum 1%
Chloride content: Nil to BS 5075
pH: 6-11
Nitrate content: Nil
Freezing point: 0°C; can be reconstituted if stirred after thawing

## STANDARDS

ASTM C-494 Type B, D and G

## DOSAGE

Optimum dosage of **MasterRheobuild 850** 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 0.8-2ltr/100kg of cement; in high performance microsilica concrete, a dosage of between 1.5-3ltr/100kg of cement. Dependent upon mix requirement, it is possible to use a higher dosage of **MasterRheobuild 850** without causing any adverse effects upon the concrete. Please consult Master Builders Solutions 's Technical Services Department for further information.

## DISPENSING

**MasterRheobuild 850** is a ready-to-use liquid, which is dispensed into the concrete 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 850** to dry aggregate or cement is not recommended. Automatic dispensers are available.

## WORKABILITY

**MasterRheobuild 850** ensures that rheoplastic concrete remains workable in excess of 3 hours at +20°C.

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Workability loss is dependent on temperature, 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 850** must be stored where temperatures do not drop below +5°C. If 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 's Technical Services Department.

### SHELF LIFE

Up to 24 months if stored according to manufacturer's instructions in unopened containers.

### SAFETY PRECAUTIONS

**MasterRheobuild 850** 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.

### NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information, contact your local Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

### QUALITY STATEMENT

All products manufactured by Master Builders Solutions Egypt, or imported from Master Builders Solutions affiliate companies world-wide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 standards.

\* Properties listed are based on laboratory controlled tests.

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