

# MasterRheobuild® 3040

### High range, water-reducing superplasticiser for rheoplastic concretes

#### **DESCRIPTION OF PRODUCT**

**MasterRheobuild 3040** is formulated from synthetic polymers specially designed to impart rheoplastic qualities to concrete.

A rheoplastic concrete is a fluid concrete, easily flowing, but at the same time free from segregation and bleeding having the same w/c ratio as that of a low slump concrete without admixture with a slight set retarding effect. Also, it provides a substantial water reduction effect for promoting high, early and ultimate strengths.

MasterRheobuild 3040 is chloride-free.

#### **ADVANTAGES**

**MasterRheobuild 3040** 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 3040 is compatible with all cements and most air-entraining agents meeting ASTM standards. The addition of MasterRheobuild 3040 and MasterAir 111 (air-entraining agent) to concrete is recommended where it is required to withstand freezing and thawing cycles.

#### **PACKAGING**

MasterRheobuild 3040 is available in 1000ltr bulk.

#### TTYPICAL PROPERTIES

Colour: Dark brown liquid Specific gravity:1.140-1.170 Chloride content: Nil to BS 5075 Nitrate content:Nil pH:5-7 Freezing point:0°C Flashpoint:N/A

#### **STANDARDS**

ASTM C-494: Types D and G BS 5075: Part 3

#### **DOSAGE**

Optimum dosage of **MasterRheobuild 3040** 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 0.6 - 2.0 ltr/100kg of cement.

Please consult Master Builders Solutions 's Technical Services Department for further information.

#### **DISPENSING**

MasterRheobuild 3040 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 to 70% of the mixing water has been added. The addition of MasterRheobuild 3040 to dry aggregate or cement is not recommended. Automatic dispensers are available.

#### **WORKABILITY**

**MasterRheobuild 3040** ensures that rheoplastic concrete remains workable in excess of 2 hours at  $\pm 20^{\circ}$ C.

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

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#### **STORAGE**

**MasterRheobuild 3040** 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.

#### **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.
- Registered trademark of a MBCC Group member in many countries of the world

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