

# MasterRheobuild® 2270

High range, water-reducing, superplasticising admixture for the production of rheoplastic concrete

## DESCRIPTION OF PRODUCT

The basic components of **MasterRheobuild 2270** are synthetic polymers, which allow mixing water to be reduced considerably and concrete strength to be enhanced significantly, particularly at early ages.

**MasterRheobuild 2270** is a chloride-free product.

## PRIMARY USE

- Production of rheoplastic self-compacting concrete
- Pre-cast concrete
- Low w/c ratio concrete
- For concrete to be placed in complicated formwork or with congested reinforcement

## ADVANTAGES

**MasterRheobuild 2270** allows the production of very flowable concrete, with a low w/c ratio. Table 1 shows some typical examples of reductions in w/c ratio. Concrete with **MasterRheobuild 2270** shows early strengths higher than concrete without admixture having the same workability. The increase in strength, especially evident at early ages, remains at later ages, both in air-cured and steam-cured processes. Initial and final sets do not change significantly with respect to concrete without admixture. Therefore, whenever longer transport and finishing times are needed, the use of retarding superplasticisers, such as **RHEOBUILD 561E** or **MasterRheobuild 850**, is recommended.

Due to the reduction in the w/c 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.

## COMPATIBILITY

**MasterRheobuild 2270** is compatible with all cements and admixtures meeting ASTM standards.

The use of **MasterRheobuild 2270** and **Master AIR 111**, air-entraining agent, is recommended whenever concrete is required to withstand freeze/thaw cycling.

## PACKAGING

**MasterRheobuild 2270** is available, 1000ltr bulk.

## TYPICAL PROPERTIES

Colour: Dark brown liquid

Specific gravity: 1.190-1.240 at 25°C

Chloride content: Nil to BS 5075

pH: 6-11

Freezing point: 0°C; can be reconstituted if stirred after thawing

## STANDARDS

ASTM C494 Types A and F

BS 5075 Part 1 and 3

## DOSAGE

**MasterRheobuild 2270** is normally dispensed, depending on the desired plasticising or water-reducing effect, at a rate of 0.6-3.5 ltr/100kg of cement. Other dosages may be used, depending on the materials and conditions.

## DIRECTIONS FOR USE

**MasterRheobuild 2270** should be added to the mix with the gauging water. No extension to mixing time is necessary. Never add **MasterRheobuild 2270** to dry cement.

Alternatively, when using **MasterRheobuild 2270** 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.

## MasterRheobuild® 2270

When using **MasterRheobuild 2270** to obtain very high early strengths, advantage must be taken of its water-reducing properties.

### EFFECTS OF OVER

A severe over-dosage of **MasterRheobuild 2270** will result in the following:

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

### DISPENSING

**MasterRheobuild 2270** 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 2270** to dry aggregate or cement is not recommended.

### STORAGE

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.

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

**MasterRheobuild 2270** contains no hazardous substances requiring labelling. 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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