

# RHEOBUILD<sup>®</sup> 1000

High range, water reducing, superplasticising admixture

## DESCRIPTION

**RHEOBUILD 1000** is a strength enhancing, superplasticising, high range, water reducing admixture formulated to produce rheoplastic concrete.

Rheoplastic concrete is fluid concrete with a slump value of at least 200mm, easily flowing but at the same time free from segregation, and having the same water/cement ratio as that of no-slump concrete (25mm) without admixture. **RHEOBUILD 1000** is a ready-to-use, chloride free, liquid admixture which meets ASTM C 494 requirements for types A and F admixtures, AS 1478 Type HWR.

## RECOMMENDED FOR

- all types of premixed concrete where high water reduction or flowing properties are required
- industrial precast concrete
- placement in cold weather

**RHEOBUILD 1000** has been used successfully in:

- pillars and footings
- prestressed elements
- long distance, vertical or horizontal pumping
- pavements
- tunnel linings
- partition walls
- bridge girders
- precasting systems
- tunnel-type shuttering systems
- in-situ casting structures
- travelling formwork casting
- slipform casting
- cantilever casting

## FEATURES AND BENEFITS

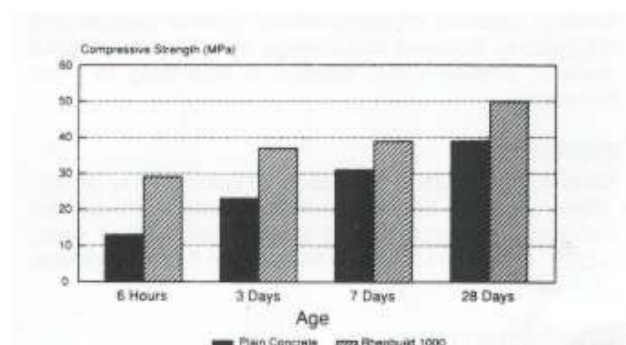
The addition of **RHEOBUILD 1000** allows mixing water to be reduced considerably and concrete strength to be accelerated significantly, particularly at early stages.

**RHEOBUILD 1000** provides high quality, rheoplastic, non-segregating concrete with:-

- **shorter placing times**
- **reduced steam and ambient temperature curing**
- **increased strength at early ages**
- **high reliability**
- **high ultimate strength**
- **impermeability**
- **durability**
- **dimensional stability**
- **high elastic modulus**
- **low shrinkage and creep**

## PERFORMANCE (As an High Range Water Reducer)

Example of the influence of **RHEOBUILD 1000** on concrete compressive strength when dosed at 1000mls/100kg of cement.



Aggregate max. size = 20mm

Cement content = 350kg/m<sup>3</sup>

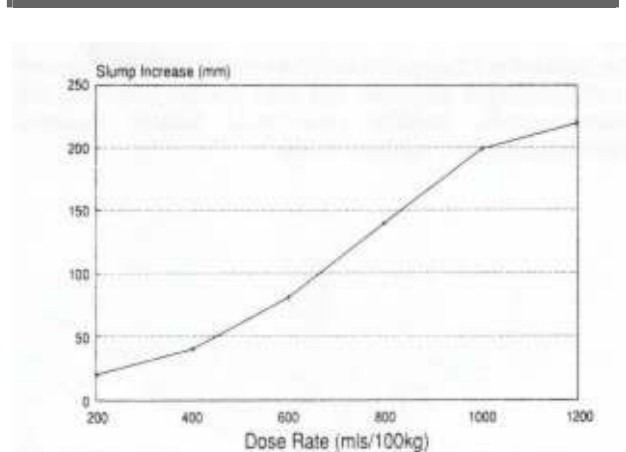
Steam curing for 6 hours

1 hour for preliminary curing at 20°C

Heating from 20 - 60°C over 1 hour

Steam Curing at 60°C for 3 hours, cooling to 20°C in 1 hour.

## PERFORMANCE (As a Superplasticiser)



This graph can be used as a guide only.  
Actual dose rate will depend on types of cements, aggregates and temperatures.

Aggregate maximum size = 20mm

Cementitious Content = 350kg/m<sup>3</sup>

Initial slump = 40mm

Temperature = 23°C



The Chemical Company

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## DOSAGE

**RHEOBUILD 1000** is normally dosed at 800 ± 200mls per 100kg of cementitious material. Other dosages may be used depending on the mix design of the concrete and ambient conditions. The actual dose depends on the degree of water reduction or flow required. Above 1000mls per 100kg cementitious material, extended retardation may be experienced.

## WORKABILITY

**RHEOBUILD 1000** can maintain the workability of fresh concrete for a pre-determined time. The precise workability duration depends on temperature, types of cement and aggregates, transport and dosage of admixture. Higher dosages provide higher duration of workability of fresh concrete.

## DISPENSING

**RHEOBUILD 1000** can be added at the batch plant or on site. When adding at the batch plant, delay addition until the cement has been thoroughly wetted and at least 75% of the water has been added. When introduced on site, mix for further 2 minutes after addition.

## COMPATABILITY

**RHEOBUILD 1000** is compatible with both water-reducers and air-entraining agents approved under SAA, SANZ and ASTM specifications when used in concrete, but must be dispensed separately into the concrete mix.

**RHEOBUILD 1000** should only be used in conjunction with water-reducing admixtures after specific test information is available at the dose rates proposed, otherwise extended retardation could result.

**RHEOBUILD 1000** is not compatible with admixtures based on polycarboxylate technology, such as **GLENIUM 27** or **RHEOMAC UW450**.

## PACKAGING

**RHEOBUILD 1000** is supplied in 1000 litre pallets and bulk delivery.

## PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the **BASF Material Safety Data Sheet (MSDS)** from our office or our website.

ARb1000/11/0511

## STATEMENT OF RESPONSIBILITY

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

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