

# RHEOBUILD<sup>®</sup> 716LR

High-range water reducing superplasticising admixture

## DESCRIPTION

**RHEOBUILD 716LR** is a 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 a no-slump concrete (25mm) without additive. The slump-retention characteristics of rheoplastic concrete permit the addition of **RHEOBUILD 716LR** admixture at the batch plant.

## RECOMMENDED FOR

- all types of premixed concrete where high water reduction or flowing properties are required.
- reinforced and prestressed concrete beams
- foundation rafts
- foundation piles
- storage tanks
- purification plants
- underwater structures
- diaphragm walls
- jetties, wharves
- highly-reinforced structures
- bank vaults
- silos
- towers and chimneys
- tunnel linings
- irrigation canals
- weirs and tunnels in hydro-electric structures
- airfield runways and roads

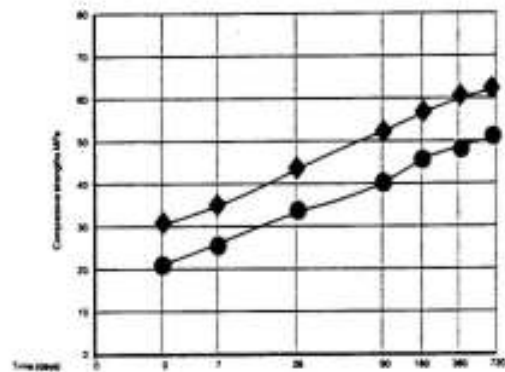
## FEATURES AND BENEFITS

**RHEOBUILD 716LR** considerably improves the properties of fresh and hardened concrete.

- **high reliability**
- **high early and ultimate strengths**
- **impermeability**
- **durability**
- **dimensional stability**
- **high elastic modulus**
- **low shrinkage and creep**

## PERFORMANCE: Compressive Strength

Example of the influence of **RHEOBUILD 716LR** on compressive strengths up to two years.



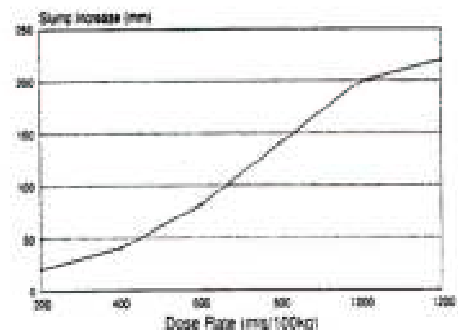
Concrete control specimen:  
Slump = 100mm; w/c = 0.57



Concrete with Rheobuild 716 at 0.85 litres per 100kg of cementitious binder dosage rate: Slump = 220mm; w/c 0.49

Maximum size of aggregate = 20mm  
Cement content = 350kg/m<sup>3</sup>  
Type of cement = GP

## 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 716LR** 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.

## WORKABILITY (Slump Retention)

**RHEOBUILD 716LR** can maintain the workability of fresh concrete for 1-2 hours at 20°C. 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.

For additional information on **RHEOBUILD 716LR** and its use in developing a concrete mix with special performance characteristics, contact your local BASF Construction Chemicals Technical Sales Representative.

## DISPENSING

**RHEOBUILD 716LR** 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 a further 2 minutes after admixture addition.

## COMPATABILITY

**RHEOBUILD 716LR** 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. 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 716LR** is not compatible with polycarboxylate ether based admixtures or Rheomac UW450.

## PACKAGING

**RHEOBUILD 716LR** is supplied in 205 litre sealed drums and bulk delivery.

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## 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.

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### 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.

**BASF Australia Ltd**  
A.B.N. 62008437867  
Head Office: 11 Stanton Road Seven Hills, NSW 2147  
Ph. (02) 8811 4200

Newcastle (02) 4961 3819  
Canberra (02) 6280 6010  
Brisbane (07) 3633 9900  
Townsville (07) 4774 7344  
Melbourne (03) 9549 0300

Adelaide (08) 8139 7500  
Perth (08) 9366 2600  
Darwin (08) 8984 3269  
Kalgoorlie 0417 772 355

**BASF New Zealand Ltd**  
**BASF WEB SITES**

Head Office: 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233  
www.basf-cc.com.au www.basf-cc.co.nz www.meyco.basf.com