

# RHEOBUILD<sup>®</sup> LD80

## High range, water-reducing/superplasticising concrete admixture

### Description of Product

RHEOBUILD LD80 is a high range, high performance superplasticiser and water reducing agent, specifically designed for the production of rheoplastic concrete required for piling, etc. RHEOBUILD LD80 disperses and deflocculates cement particles, thereby increasing the workability and flowability of concrete mixes.

### Primary Uses

- For all piling applications, including C.F.A.
- For the production of flowing concrete
- To increase workability
- For hot weather concreting
- For controlled delays to initial and final setting of concrete mixes

### Typical Applications

RHEOBUILD LD80 is recommended for use wherever the following situations are encountered:

- For piling concrete
- Concrete containing pozzolanic materials
- In areas of congested reinforcement, where high workability and cohesion are of benefit

### Composition

A multi-component admixture based upon high molecular weight polymers and refined lignosulphonates.

### Advantages

- Effective over high range of cement contents and types
- Improves pumpability, durability and impermeability
- Extended slump retention time – maintains workability in excess of concrete produced utilising conventional superplasticisers
- Reduces placing problems in hot weather, through improved workability retention in conjunction with controlled setting times

### Action

RHEOBUILD LD80 acts on the cement particles by its powerful deflocculating and sequestering action to retard and maximise the hydration of the cement paste. Its powerful plasticising action results in high workability concrete, which is responsive and cohesive. This action enables concrete with low or reduced water contents to be produced.

### Packaging

RHEOBUILD LD80 is available in 210ltr drums and 1000ltr containers.

### Typical Properties

Colour:	Dark brown liquid
Air-entrainment:	0-1% depending on the dosage
Specific gravity	1.180 ± 1.190 at 25°C
Chloride content:	Nil to BS 5075
Nitrate content:	Nil
Freezing point:	0°C
Flashpoint:	N/A

### Standards

ASTM C-494 Types B, D and G; BS 5075: Part 1 Retarding/superplasticising

### Directions for Use

RHEOBUILD LD80 should be added to the concrete mix during the mixing cycle at the same time as the water. Never add RHEOBUILD LD80 to dry cement. Alternatively, when using RHEOBUILD LD80 to produce flowing concrete at site using transit mixer trucks, it can be added to the concrete via the feed hopper at the rear of the truck. Ensure at least 5 minutes mixing before discharge – minimum drum revolution of 10rpm – to produce a fully homogenous mix.

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## Dosage

Field trials should be conducted to determine the optimum addition rates of RHEOBUILD LD80. The following figures should be utilised as a starting point for these trials.

## Flowing concrete:

An addition rate of 0.5-0.8ltr/100kg of cement is usually required to produce flowing concrete from a concrete with an initial slump in the range of 50-70mm.

## High strength, high workability concrete:

Using RHEOBUILD LD80 at 750-1000ml/100kg, concrete mixes can be produced with a reduction in water in the range of 10 to 15% and an increase in workability within 100 to 150%.

## Compatibility

RHEOBUILD LD80 can be used with all types of Portland cement including SRC and modified cement (Type II). For use with special cements, contact BASF's Technical Services Department. RHEOBUILD LD80 should not be premixed with other admixtures. If other admixtures are to be used in the concrete containing RHEOBUILD LD80, they must be dispensed separately. Contact BASF's Technical Services Department for further advice.

## Effects of Over Dosage

A severe over dosage of RHEOBUILD LD80 will result in the following:

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

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete.

The effect of over dosage will be exaggerated with SRC.

## Dispensing

RHEOBUILD LD80 should be dispensed through a proprietary dispenser, such as is available from BASF. Details available upon request.

## 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 BASF's Technical Services Department.

## Shelf Life

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

## Safety Precautions

RHEOBUILD LD80 contains no hazardous substances requiring labelling. For further information, refer to material safety data sheet.

## Note

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

BASF reserves the right to have the true cause of any difficulty determined by accepted test method.

## Quality Statement

All products manufactured by BASF Egypt, or imported from BASF affiliate companies worldwide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2000, ISO 14001:2004 & OHSAS 18001:1999 standards.

12/07 BASF-EG

BASF-CC, Egypt  
55, St. 18, Maadi Sarayat  
11431 Cairo, Egypt  
Factory: Sadat City, Piece 118  
Zone 4

Tel.: +2 012 393 98 44  
Tel.: +2 012 398 67 78  
Tel.: +2 012 390 22 35  
Tel.: +2048 2604842  
Fax: +2048 2604757

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e-mail: [enquire.egypt@basf.com](mailto:enquire.egypt@basf.com), website: [www.basf-cc.com.eg](http://www.basf-cc.com.eg)

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