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The Chemical Company

RHEOBUILD® 601

High range water reducing / superplasticising concrete admixture

Description

RHEOBUILD® 601 is a high range, high performance superplasticiser and water reducing agent. RHEOBUILD® 601 disperses and deflocculates cement particles thereby increasing the workability and flowability of the concrete mixes.

Primary uses

RHEOBUILD® 601 is formulated for use by commercial ready-mix operators, who can benefit from its multiple role characteristics.

Typical applications

- In areas of congested reinforcement where high workability will ease placement and compaction.
- Hot weather concreting where extension of workability and controlled delays to initial set are beneficial.
- To effect reductions in the water cement ratio enabling either higher strength or cement economy.

Composition

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

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 by improved workability retention in conjunction with controlled setting times.

Action

RHEOBUILD® 601 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® 601 is available in bulk or in 210 litre drums.

*Typical properties

Colour	dark brown liquid
Specific gravity	1.235 at 25°C
Chloride content	“chloride-free” to EN 934-2
Freezing point	0°C

Standards

ASTM C-494 Types F and G
EN 934-2 Tables 3.1, 3.2, 10.1 and 10.2

Directions for use

RHEOBUILD® 601 should be added to the concrete mix during the mixing cycle at the same time as the water. Never add RHEOBUILD® 601 to the dry cement.

Dosage

The normal range is 0.8 -2.0 litre/100 kg total cementitious material. Higher dosages may be required when certain combinations of materials and conditions are present.

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In all cases, trial mixes should be carried out to determine the optimum dosage required to achieve the desired concrete property.

Compatibility

RHEOBUILD® 601 can be used with all types of Portland cement including Sulphate Resisting and modified cement (Type II). For use with special cements, contact BASF's Technical Services Department.

RHEOBUILD® 601 is suitable for mixes containing:

- Microsilica (silica fume)
- Fly Ash (pulverized fuel ash)
- GGBS (ground granulated blast furnace slag)

RHEOBUILD® 601 should not be premixed with other admixtures. If other admixtures are to be used in the concrete containing RHEOBUILD® 601, they must be dispensed separately. Contact BASF's Technical Services Department for further advice.

Dispensing

RHEOBUILD® 601 should be dispensed through a proprietary dispenser, such as is available from BASF. Details available upon request.

Safety precautions

RHEOBUILD® 601 contains no hazardous substances requiring labelling. For further information, refer to material safety data sheet.

Storage

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is up to 2 years when stored as above. 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.

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 methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

BASF Construction Chemicals UAE LLC
P.O. Box 37127, Dubai, UAE
Tel: +971 4 8090800 Fax: +971 4 8851002
www.basf-cc.ae