

## Description

Rheobuild 1000 high-range, water-reducing admixture is formulated to produce rheoplastic concrete.

Rheoplastic concrete flows easily, maintaining high plasticity for time periods longer than conventional superplasticized concrete. Rheoplastic concrete has the low water-cementitious materials ratio of no-slump concrete, providing excellent engineering (hardened) properties. The slump-retention characteristics of rheoplastic concrete permit the addition of Rheobuild 1000 admixture at the batch plant.

Rheobuild 1000 admixture meets ASTM C 494/C 494M requirements for Type A, water-reducing, and Type F, high-range water-reducing, admixtures.

## Applications

Recommended for use in:

- Concrete where high plasticity, normal-setting characteristics and accelerated strengths are desired
- Prestressed, precast and ready-mixed concrete applications
- Civil and mining applications

# RHEOBUILD® 1000

## High-Range Water-Reducing Admixture

### Features

#### **Plastic State:**

- Plasticity range of 8-11 in. (200-280 mm)
- Extended slump retention
- Controlled set times
- Cohesive and non-segregating
- Minimal bleed water

#### **Hardened State:**

- Higher earlier strengths than can be achieved with conventional superplasticizers
- Increased ultimate compressive strength
- Higher modulus of elasticity
- Improved bond strength to steel
- Low permeability
- High durability
- Reduced shrinkage and creep
- Highly reliable in-place structural integrity

### Benefits

- Less dependence on consolidation energy
- Job time and cost reduced through higher productivity rates and/or reduced labor
- Early strength allows for accelerated construction methods, resulting in completion dates ahead of schedule
- Engineering specification changes can allow for greater limits on the free-fall of concrete, lift heights, concrete temperatures and potential economic mixture adjustments

### Performance Characteristics

**Rate of Hardening:** Rheobuild 1000 admixture is formulated to produce normal-setting characteristics throughout its recommended dosage range. Setting time of concrete is influenced by the chemical and physical composition of the basic ingredients of the concrete, temperature of the concrete and climatic conditions. Trial mixes should be made with job materials to determine the dosage required for a specified setting time and a given strength requirement.

**Workability:** Concrete containing Rheobuild 1000 admixture has the ability to maintain a rheoplastic state of 8-11 in. (200-280 mm) of slump if such workability is required. The precise duration of workability depends not only on temperature, but also on the type of cement, supplementary cementitious materials, mixture proportions, the nature of the aggregates, the method of transport and the dosage.

# Product Data: RHEOBUILD® 1000

## Guidelines for Use

**Dosage:** Rheobuild 1000 admixture has a dosage range of 10-25 fl oz/cwt (650-1,600 mL/100 kg) of cementitious materials, depending upon the application and the desired increase in slump and strength. This dosage range applies for most concrete mixtures using typical concrete ingredients. However, variations in job conditions and concrete materials, such as silica fume, may require dosages outside the recommended dosage range desirable. In such cases, contact your BASF Construction Chemicals representative.

**Mixing:** Because slump retention is increased using Rheobuild 1000 admixture, it may be batched at the ready-mix plant. Rheobuild 1000 admixture can also be added at the jobsite to increase slump if desired. For directions on the proper evaluation and use of Rheobuild 1000 admixture in specific applications, contact your BASF Construction Chemicals representative.

## Product Notes

**Corrosivity – Non-Chloride, Non-Corrosive:** Rheobuild 1000 admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete, prestressing steel or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of Rheobuild 1000 admixture.

**Compatibility:** Rheobuild 1000 admixture may be used in combination with most BASF Construction Chemicals admixtures. When used in conjunction with other admixtures, each admixture must be dispensed separately into the mix. **Rheobuild 1000 admixture should not be used with Rheomac® UW 450, Rheomac VMA 358 or Rheomac 450 VMA, PolyHeed® FC100, PolyHeed 1020, PolyHeed 1025 and Glenium®-based high-range, water-reducing admixtures as erratic behaviors in slump, slump flow or pumpability may be experienced.**

## Storage and Handling

**Storage Temperature:** If Rheobuild 1000 admixture freezes, thaw at 45 °F (7 °C) or above and completely reconstitute by mild mechanical agitation. **Do not use pressurized air for agitation.**

**Shelf Life:** Rheobuild 1000 admixture has a minimum shelf life of 18 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your BASF Construction Chemicals representative regarding suitability for use and dosage recommendations if the shelf life of Rheobuild 1000 admixture has been exceeded.

## Packaging

Rheobuild 1000 admixture is supplied in 55 gal (208 L) drums, 275 gal (1040 L) totes and by bulk delivery.

## Related Documents

Material Safety Data Sheets: Rheobuild 1000 admixture.

## Additional Information

For additional information on Rheobuild 1000 admixture or its use in developing a concrete mixture with special characteristics, contact your BASF Construction Chemicals representative.

*The Admixture Systems business of BASF Construction Chemicals is a leading provider of innovative additives for specialty concrete used in the ready mix, precast, manufactured concrete products, underground construction and paving markets throughout the NAFTA region. The Company's respected Master Builders brand products are used to improve the placing, pumping, finishing, appearance and performance characteristics of concrete.*

**BASF Construction Chemicals, LLC**  
Admixture Systems

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