

Rheomac[®] 300D

Crystalline Capillary Waterproofing Admixture

Description

Rheomac 300D admixture is an integral crystalline capillary waterproofing admixture for concrete. It is designed for use in above- and below-grade applications.

Applications

Recommended for use in:

- Foundations
- Sewage and water treatment plants
- Tanks
- Underground vaults
- Tunnel and subway systems
- Water reservoirs
- Secondary containment structures
- Parking structures
- Precast components
- Swimming pools

Features

- Crystalline cementitious material
- Integral addition
- Reduces concrete permeability
- Allows concrete to breathe

Benefits

- Reduces penetration of water and other liquids
- Seals hairline cracks
- Resists positive and negative side hydrostatic pressure
- Protects against sewage and industrial wastes

Performance Characteristics

Setting Time: Rheomac 300D admixture has little to no effect on concrete setting time within the recommended dosage range.

Permeability: Rheomac 300D capillary waterproofing admixture is a portland cement-based crystalline cementitious material that reacts in concrete to form non-soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete thus reducing capillary absorption and the penetration of water and other liquids.

Typical Data for Rheomac 300D admixture @ 2% by mass of cement

| <i>Performance characteristic</i> | <i>Test method</i> | <i>Performance relative to untreated concrete mixture</i> |
|-----------------------------------|--------------------|---|
| Capillary Absorption | ASTM C 1585 | 43% reduction |
| Water Penetration | Modified DIN 1048 | 40% reduction |
| Moisture Vapor Emission Rate | ASTM F 1869 | Same |
| Electrical Conductance | ASTM C 1202 | Same |
| Compressive Strength | ASTM C 39/C 39M | 7% increase |

Guidelines for Use

Dosage: The dosage range for Rheomac 300D admixture is 2% to 2.5% by mass of cement. For most applications, the recommended optimum dosage is 2% by mass of cement.

Dispensing and Mixing: Rheomac 300D admixture is batched at the concrete production plant in a manner similar to that for cement or other cementitious materials. It may be batched in either a central or truck mixer. Follow the procedures outlined in ASTM C 94/C 94M, Standard Specification for Ready-Mixed Concrete, for general batching and mixing instructions for concrete. Provide at least 5 minutes of mixing after the addition of Rheomac 300D admixture to ensure thorough and uniform distribution of the admixture in the concrete mixture.

Product Data: Rheomac® 300D

Product Notes

Corrosivity – Non-Chloride, Non-Corrosive: Rheomac 300D admixture will neither initiate nor promote corrosion of reinforcing or prestressing steel embedded in concrete or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of Rheomac 300D admixture.

Compatibility: Rheomac 300D admixture can be used with portland cements approved under ASTM, AASHTO or CRD specifications. It is compatible with most concrete admixtures, including all BASF Construction Chemicals products. Rheomac 300D admixture is recommended for use with high-range water-reducing admixtures, such as the Glenium® series, for maximum workability while maintaining a low water-to-cementitious materials ratio.

Storage and Handling

Rheomac 300D admixture must be stored in a clean, dry area maintained at a minimum temperature of 45 °F (7 °C). Rheomac 300D admixture has a shelf life of one year when stored under recommended conditions.

Packaging

Rheomac 300D admixture is available in 24 lb (11 kg) shreddable bags and in 48 lb (22 kg) bags.

Related Documents

Material Safety Data Sheet: Rheomac 300D admixture.

Additional Information

For additional information on Rheomac 300D admixture or its use in developing concrete mixtures with special performance characteristics, contact your local sales representative.

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

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