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Master X-Seed® STE 100

Strength enhancing admixture

DESCRIPTION

Master X-Seed STE 100 is a patent-pending, strength enhancing admixture that improves both early and late-age strength development in concrete, while supporting sustainable construction. **Master X-Seed STE 100** admixture is based on a unique technology that facilitates improved cement hydration, thus enhancing strength development. **Master X-Seed STE 100** will meet ASTM C 494/C 494M requirements for Type S, Specific Performance, admixtures.

The strength enhancing property of **Master X-Seed STE 100** admixture permits a reduction in the total cementitious materials content of a given concrete mixture while maintaining compressive strength development equivalent to that of reference concrete, with associated benefits in CO2 emissions reduction.

Particle Seeding Technology

Master X-Seed STE 100 admixture is based on a BASF proprietary technology that ensures a stable suspension of synthetically produced crystalline CSH nanoparticles. These particles act as active seeds in a concrete mixture to facilitate the growth of active crystals between cement particles. The unique technology of **Master X-Seed** admixture provides an unmatched improvement of the hydration process in a concrete matrix which increases early and late age strength development compared to a reference untreated concrete mixture.

RECOMMENDED USES

- Green Sense Concrete
- Ready-mixed concrete
- Pre-stressed concrete
- Precast concrete
- Self-consolidating concrete

FEATURES AND BENEFITS

- Improves cement hydration
- Increases strength development – both early (1 day) and late-age (28 days)
- Enhances workability of high performance concrete mixtures

- Provides a strength safety factor and/or expanded performance space
- Reduces in place concrete costs when utilized in optimized concrete mixtures
- Permits higher replacement levels of supplementary cementitious materials (SCMs)
- Permits earlier stripping and reuse of forms
- Helps reduce CO2 emissions associated with concrete

PERFORMANCE

Rate of Hardening

Master X-Seed STE admixture is formulated to provide similar setting characteristics compared to a reference untreated concrete mixture. The time of setting of concrete is primarily influenced by ambient and concrete temperatures, as well as the chemical and physical compositions of the basic ingredients of the concrete. Therefore, trial mixtures should be made with job materials to determine the dosage required for a given application.

COMPATIBILITY

Master X-Seed STE 100 admixture is compatible with most admixtures used in the production of quality concrete, including normal, mid-range and high-range water reducing admixtures, air entrainers, accelerators, retarders, extended set control admixtures, corrosion inhibitors and shrinkage reducers.

DOSAGE

Master X-Seed STE 100 admixture has a recommended dosage range of 250 to 1000ml/100kg of cementitious materials. Because of variations in concrete materials, jobsite conditions and/or applications, dosages outside of the recommended range may be required. In such cases, contact your local BASF Technical Sales Representative.

PACKAGING

Master X-Seed STE 100 is available in 1000 litre pallecons and bulk delivery.



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STORAGE / SHELF LIFE

Master X-Seed STE 100 must be stored at temperatures above 5°C. If **Master X-Seed STE 100** admixtures freezes, thaw and reconstitute by mechanical agitation. Do not use pressurized air for agitation. **Master X-Seed STE 100** admixture has a shelf life of 12 months. If the product is not used within three months, agitation may be required.

NOTES

Corrosivity – Non-chloride, non-corrosive: **Master X-Seed STE 100** admixture will neither initiate nor promote corrosion or 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 **Master X-Seed STE 100** admixture.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the BASF Safety Data Sheet (SDS) from BASF office or 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.

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