

MasterXSeed 100

Hardening accelerating admixture for concrete EN 934 – 2: T7

DESCRIPTION

Master X-Seed 100 is an engineered suspension of crystal seeds containing nanoparticles, designed to boost the hydration process of early age cement (6-12 hrs.). Based on unique and innovative seeding technology, the growth of the essential Calcium Silicate Hydrate crystals is strongly accelerated.

Master X-Seed 100 promotes concrete hardening at low, ambient and even heat curing temperatures. Unlike traditional acceleration methods and thanks to the unique mode of action - the virtually barrier-free crystal growth of the seeds in between the cement grains - early strength development is accelerated while the final microstructure benefits from equivalent or improved properties.

CRYSTAL SPEED HARDENING

Master X-Seed 100 is the essential component of BASF's Crystal Speed Hardening concept.

Crystal Speed Hardening expresses the Value Proposition offered by the unique crystal seeding technology of Master X-Seed:

- Efficient Processes
- Energy Reduction
- Material Optimization
- High Quality Specifications

The concept addresses key industry requirements and has the power to exceed all current solutions. In particular, the concept is designed to make a significant contribution to meeting sustainable construction targets.

FIELDS OF APPLICATION

Master X-Seed 100 is optimized for all kinds of concretes, especially for structural precast elements where high early strength development is a key success factor for the producer. Master X-Seed 100 is a relevant alternative to heat curing methods and the strong promotion of hydration in particular supports the use of binders with lower clinker content.

FEATURES and BENEFITS

Master X-Seed 100 offers the following benefits:

- Early strength acceleration at low, ambient and heat curing temperatures

- Flexible adjustment of production capacities
- Increased production cycles (double, triple rotation)
- Better use of formwork by earlier demoulding
- Reduction/elimination of heat curing
- Reduced investment and running cost of curing
- Allows use of minimum required cement quantities
- Allows binder optimization by using lower grade, less clinker-containing cements or by increasing use of supplementary cementitious materials (Limestone, Fly Ash, Slag)
- Lower risk of delayed ettringite formation
- Reduced water absorption
- Improved concrete durability aspects
- Improved plant and product ECO-efficiency by reducing CO2 emissions

DOSAGE

The normally recommended dosage rate of Master X-Seed 100 is approximately:

- *By Weight* - 0.50 to 6.00 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Construction Chemicals San.Tic.Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

MIXING

Master X-Seed 100 is a ready-to-use liquid admixture to be added to the concrete during the mixing process. Enough mixing time to secure homogeneous dispersion should be provided.

COMPATIBILITY

Master X-Seed 100 can be used with all types of **EN 197 Cements**. For use with other special cements, contact with Master Builders Solutions Construction Chemicals San.Tic.Ltd.Şti Technical Services Department.

Master X-Seed 100 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing Master X-Seed 100 they must be dispensed separately.

Master X-Seed 100 is compatible with all Master Builders Solutions core technologies such as ZERO

MasterXSeed 100

Hardening accelerating admixture for concrete EN 934 – 2: T7

ENERGY SYSTEM and SMART DYNAMIC CONCRETE, in particular with

- MasterGlenium type superplasticizers for high fluidification power
- MasterMatrix viscosity modifying agents for robust self-compacting concrete
- MasterFinish form release agents for easy formwork removal and aesthetic surface finish

MasterAir air entraining agents for improved freeze-thaw resistance

PACKAGING

Master X-Seed 100 is supplied in 1150-kg IBC's

Product Data	
Appearance	White liquid
Specific gravity @ 20°C	1.135 ± 0.03 kg/l
pH-value	11.0 ± 1
Alkali content (%)	≤ 4.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.
Logistics	
Shelf life	12 months if stored according to manufacturer's instructions in unopened container.
Storage conditions	Store in original sealed containers and at temperatures between 5°C and 30°C. 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.
Handling and transportation	Refer to MasterXSeed 100 Safety Data Sheet.
Disposal	Refer to MasterXSeed 100 Safety Data Sheet.

MasterXSeed 100

Hardening accelerating admixture for concrete EN 934 – 2: T7

HEALTH AND SAFETY

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted. The following general comments apply to all products. As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

SPILLAGE

Chemical products can cause damage; clean spillage immediately.

DISCLAIMER

"Master Builders Solutions Construction Chemicals San.Tic.Ltd.Şti." (the Company) endeavors to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use. Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application. Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest product literature.

CONTACT INFORMATION

Master Builders Solutions Yapı Kimyasalları
Sanayi ve Ticaret Ltd. Şti.
Head Office Adress : Barbaros Mah. Begonya Sok.
Nidakule Ataşehir Kuzey C Kapısı No:3E/5 ,34746
Ataşehir, İstanbul, Türkiye
Tel: 0216 217 88 00
Mail: mbs.tr@mbcc-group.com
www.master-builders-solutions.com/tr-tr

MasterXSeed 100 Technical Data Sheet -Revision
Date: 10/2020