

Master X-Seed STE 35

Strength-Enhancing Admixture for the production of precast elements and manufactured concrete products (MCP).

Material description

Master X-Seed STE 35 is an engineered Strength-Enhancing Admixture, chloride free, developed in the R&D laboratories of Master Builders Solutions. It is designed to be used mainly in the production of precast and MCP elements. Master X-Seed STE 35 promotes the cement hydration and improves the growth of the Calcium Silicate Hydrate crystals. Master X-Seed STE 35 strongly accelerates hydration at early (16-18 hours), medium and long ages (14-28 days).

Fields of application

Master X-Seed STE 35, with its peculiar mechanism of action, helps in supporting a sustainable construction by optimization of the concrete mix design. The strength-enhancing property of Master X-Seed STE 35 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. For this reason, Master X-Seed STE 35 is strongly recommended for the production of precast elements and manufactured concrete products (MCP) and especially in the production of Hollow Core Slabs.

Benefits

Master X-Seed STE 35 offers the following benefits:

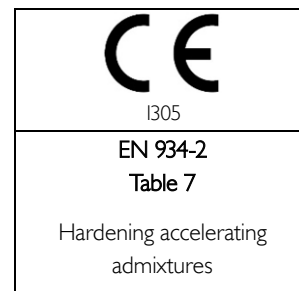
- Early, medium and late strength acceleration.
- Allows binder optimization by using lower grade, less clinker-containing cements or by increasing use of supplementary cementitious materials (Limestone, Fly Ash, Slag).
- Allows to optimize the heat curing in terms of time and/or temperature reduction.
- Permits earlier stripping and reuse of forms.
- Helps reduce CO₂ emissions associated with concrete.

Compatibility

Master X-Seed STE 35 is compatible with all Master Builders Solutions core technologies, in particular with:

- MasterGlenium, MasterCast, MasterEase, MasterSure, MasterCO₂re type superplasticizers for high fluidification power.
- MasterMatrix SDC viscosity modifying agents for robust self-compacting concrete.
- MasterAir, air entraining agent advised when concrete is exposed to a freeze and thawing cycles (following UNI EN 206-1).

In compliance with the European Regulation (EU No 305/2011 and EU No. 574/2014) the product is provided with the CE marking according to UNI EN 934-2 and the relative DoP (Declaration of Performance).



Dosage

The recommended dosage rate is 0,7 to 2 liters per 100 kg of cement.

Other dosages may be used in special cases according to specific conditions. In this case, please consult our Technical Services Department.

Packaging and storage

Master X-Seed STE 35 is available in 10 liters cans, 1.000 liters containers or in bulk.

Master X-Seed STE 35 must be stored at temperatures above 5°C.

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Directions for use

Master X-Seed STE 35 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.

Handling and transportation

The use of protective gloves and glasses are recommended. Do not eat, drink or smoke during application. Master X-Seed STE 35 is non-flammable, non-toxic and is not subject to special transport requirements. Please refer to the Safety Data Sheet.

Technical Information	
Form	Liquid
Relative density (g/cc at 20°C)	1.080 – 1.120
Essential characteristic in accordance to EN 934-2	
Chloride ion content	≤ 0.1% by mass
Alkali content (Na ₂ O equivalent)	≤ 10.0%
Corrosion behaviour	Contains only components from EN 934-1 2008 Annex A.2
Air content	≤ 2.0 %

Safety instruction

For information on the correct and safe use, transport, storage, and disposal of the product, consult the most recent Safety Data Sheet.

Scan QR code to visit the product page and download the latest version of this technical data sheet and any additional documentation.



Other services

For additional technical information, brochures, references, technical reports and technical support please visit www.master-builders-solutions.com/it-it or alternatively contact infomac@masterbuilders.com.

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Disclaimer

Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

For further information, please consult the local Technician of Master Builders Solutions. The technical advice on how to use our products, either written or verbally given, are based on the current state of our scientific and practical expertise, and does not imply the assumption of any guarantee and/or responsibility for the final results of works executed using our products.

Therefore, the customer is not exempted from the exclusive task and responsibility of verifying the suitability of our products for the intended use and purposes.

This version supersedes all the previous ones.

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