

MasterMatrix SCC 885

Viscosity modifying admixture for Rheodynamic concrete.

Description and where to use

The Rheodynamic technology allows concrete to be placed and consolidated without any vibration, even in the presence of heavy reinforcement.

A self-compacting mix should have a low yield stress, high workability and viscosity and an appropriate plastic viscosity. The fluidity of the mix is guaranteed provided that there is little friction between the internal particles and the concrete can then flow freely. Segregation occurs when the components of the concrete separate out into mortar and large aggregates. Reaching the right balance between fluidity and resistance to segregation – apparently opposing properties – is essential for this type of mix.

This balance is lacking when the fluidity of the concrete is obtained by increasing the water content.

Although a superplasticizer admixture gives high fluidity, it alone does not guarantee the necessary properties to ensure a good degree of self-compaction.

That is why MasterMatrix SCC 885 is a fundamental admixture for making Rheodynamic Concrete.

MasterMatrix SCC 885 is chloride free.

Benefits

Thanks to its particular chemistry, with MasterMatrix SCC 885 it is possible to:

- refine the rheology of the mixes by increasing cohesiveness and eliminating bleeding;
- produce concretes distinguished by their great stability and strong capacity to retain water;
- obtain a more homogeneous mortar to keep the solid particles in suspension, thereby ensuring excellent filling of the formwork;
- make the mixture less sensitive to variations in sand grading, to the shape and moisture content of the aggregates and to the characteristics of the binders;
- obtain greater flexibility of choice and type of forms because of a low risk of segregation, greater pumping speeds and distances;
- provide a wide range of tolerance in mix water content, thanks to its viscous effect, without problems of segregation.

Mechanism of action

MasterMatrix SCC 885 consists of a mixture of water-soluble polymers that changes the viscosity of the water and influencing the rheological properties of the mix.

MasterMatrix SCC 885 has a dual action:

- it modifies the plastic viscosity and maintains internal cohesion of the concrete during casting, thanks to the polymer chains of the admixture which arrange themselves in the direction of flow of the mix;
- it resists segregation on settlement due to aggregation of the polymer chains when the concrete is at rest.

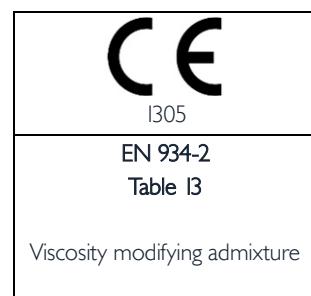
The rheological behaviour induced by MasterMatrix SCC 885 is optimised by using it in combination with MasterGlenium, MasterEase or MasterCO₂re range of superplasticizers to enhance its properties thanks to a particular synergic effect.

Compatibility

MasterMatrix SCC 885 is compatible with all types of cements. The rheological behaviour induced by MasterMatrix SCC 885 is optimised when used in combination with MasterGlenium, MasterEase or MasterCO₂re superplasticizer.

MasterMatrix SCC 885 is not compatible with all admixtures of the MasterRheobuild series.

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).



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Technical Information	
Form	Liquid
Relative density (g/ml at 20°C)	1.000 – 1.040
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0.1% by mass
Akali content (Na ₂ O equivalent)	≤ 1.0%
Corrosion behavior	Contains component only from EN 934-1: 2008 Annex A. I
Compressive strength	28 days ≥ 80%
Air content	≤ 2.0 %
Segregated portion (SR)	SR ≤ 70%

Dosage

MasterMatrix SCC 885 is batched on the total amount of fines in the mix (below 0.125 mm).

Its recommended dosage is between 0.3 - 1 litre per 100 kg of the fines. Other dosages may be recommended in special cases according to specific job site conditions.

Directions for use

MasterMatrix SCC 885 is a ready-to-use liquid admixture, which should be added to the concrete during the mixing process together with the water. This is particularly important in order to obtain maximum efficacy. For best performance it is advisable to continue mixing until the mix is completely homogeneous.

No special requirements must be observed while the product is used. Protection gloves and glasses are recommended. Do not eat, drink or smoke during the application. MasterMatrix SCC 885 is non-flammable, non-toxic or irritant and is not subject to special transport requirements. MasterMatrix SCC 885 is dilutable with water.

Packaging and storage

MasterMatrix SCC 885 is available in 10L cans, in 208L drums, 1.000L tanks or in bulk.

It is advisable to keep the product at temperatures of at least 5°C. In case of freezing, warm up and homogenise the admixture solution before using.

Handling and transportation

No special requirements must be observed while the product is used. Protection gloves and glasses are recommended. Do not eat, drink or smoke during the application. MasterMatrix SCC 885 is non-flammable, non-toxic or irritant and is not subject to special transport requirements.

Safety instruction

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



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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.

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



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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