

MasterMatrix SDC 150

High-performance viscosity modifying agent (VMA) for Rheodynamic concrete.

Material description

MasterMatrix SDC 150 is an aqueous solution of a high-molecular weight innovative synthetic copolymer. Thanks to its tailored mode of action in concrete, MasterMatrix SDC 150 imparts a level of viscosity within a mix enabling the right balance between fluidity, passing ability and resistance to segregation to be achieved. The balance is lacking when the fluidity of the concrete is obtained by adding water.

Smart Dynamic Concrete™

MasterMatrix SDC 150 is a key component to our Smart Dynamic Concrete concept for benefits in:

- Economy: Savings on fines (< 0.125 mm), up to 40% faster placing and up to 5 times higher labor productivity.
- Ecology: Less fines - less CO₂ emission, and higher concrete durability.
- Ergonomic: No vibration, no noise, low stickiness of the concrete mixture.

MasterMatrix SDC 150 is optimized for use whenever an increase in mix viscosity would be advantageous, especially for SCC (Self-compacting concrete) with a low fines content (material passing the 0.125 mm sieve).

Benefits

MasterMatrix SDC 150 offers the following benefits for the concrete industry:

- Prevents segregation and bleeding.
- Can be used with all types of cement.
- Does not effect setting times nor early strengths.
- Mixes are more robust to changes in water demand.

Mechanism of action

MasterMatrix SDC 150 consists of a water-soluble polymer which modifies the rheological properties of the mix. The polymer adjusts the viscosity of the paste to obtain the optimum stabilization.

MasterMatrix SDC 150 has a dual action:

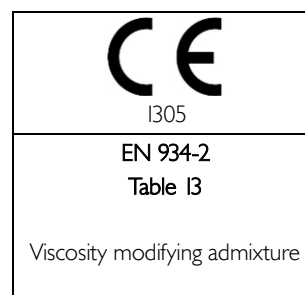
- It maintains internal cohesion of the concrete during casting.
- It resists segregation when the concrete has been placed.

Compatibility

MasterMatrix SDC 150 is compatible with all types of cements. The rheological behaviour induced by MasterMatrix SDC 150 is optimised when used in combination with MasterGlenium superplasticizer.

To produce highly fluid concretes or SCC, MasterMatrix SDC 150 needs be used in combination with a superplasticizer admixture of the MasterGlenium range in order to guarantee maximum efficacy.

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

MasterMatrix SDC 150 is batched on the total of fines below 0.125 mm and is recommended between 0.25 - 1.5 % by weight of fines.

Other dosages may be recommended in special cases according to specific job site conditions. In this case please consult our Technical Services Department. Other dosages may be used in special cases according to specific job site conditions. In such cases please consult our Technical Service Department for advice.

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Packaging and storage

MasterMatrix SDC 150 is available in 10L cans, in 208L drums, 1.000L tanks or in bulk.

MasterMatrix SDC 150 must be stored at temperatures above 5°C. Store under cover, out of direct sunlight and protect from extreme temperatures.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

For special storage advice consult our Technical Services Department. Up to 12 months if stored according to manufacturer's instructions in original sealed packaging.

Technical Information	
Form	Liquid
Relative density (g/ml at 20°C)	1.000 – 1.015
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0.1% by mass
Alkali content (Na ₂ O equivalent)	≤ 1.0%
Corrosion behaviour	Contains component only from EN 934-1: 2008 Annex A.1
Compressive strength	28 days ≥ 80%
Air content	≤ 2.0 %
Segregated portion (SR)	SR ≤ 70%

Directions for use

MasterMatrix SDC 150 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 SDC 150 is non-flammable, non-toxic or irritant and is not subject to special transport requirements. MasterMatrix SDC 150 is dilutable with water.

Compatibility

MasterMatrix SDC 150 is not compatible with all admixtures of MasterRheobuild series.

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 SDC 150 is non-flammable, non-toxic or irritant and is not subject to special transport requirements. MasterMatrix SDC 150 is dilutable with water.

Safety instruction

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

Master Matrix SDC I50

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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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