

MasterMatrix SDC 150

High performance viscosity modifying agent (VMA) for fluid concrete - EN 934-2: T13

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 Construction

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

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

Fields of Application

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).

MasterMatrix SDC 150 can also be used as a pumping aid where difficult materials are being used, or where the pumping requirements in terms of height &/or distance are encountered. In these situations, the dosage rate will need to be assessed on a case by case basis, but would normally be lower than 0.4% by cement (binder) content.

Characteristics and 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 affect setting times nor early strengths

- Mixes are more robust to changes in water demand
- Can be used as a pumping aid

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

Dosage

MasterMatrix SDC 150 is batched on the total of fines below 0.1 mm and the normally recommended dosage rate of MasterMatrix SDC 150 is approximately:

- *By Volume* - 0.10 to 0.79 litres per 100 kg of cement (binder) content.
- *By Weight* - 0.10 to 0.80 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 utilised in special cases according to specific job conditions. If required consult our Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

Mixing

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.



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Compatibility

MasterMatrix SDC 150 can be used with all types of EN 197 Cements. For use with other special cements, contact our Technical Services Department.

MasterMatrix SDC 150 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing MasterMatrix SDC 150 they must be dispensed separately.

When complimentary admixtures are required it is important that trials are performed, prior to any supply, to determine the respective dosages of any complimentary admixture, and the suitability, in the fresh and hardened state, of the resultant concrete. In these circumstances, we recommend that you consult our Technical Services Department for further advice.

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 to be used in combination with a

superplasticizer admixture of the MasterGlenium range in order to guarantee maximum efficacy.

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

Packaging

MasterMatrix SDC 150 is supplied in Bulk, 1000-litre IBC's and 15-litre containers.

Contact Details

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Product Data	
Appearance:	Clear liquid
Specific gravity @ 20°C:	1.01 ± 0.01 g/cm ³
pH-value:	6.5 ± 1
Alkali content (%):	≤ 0.10 by mass
Chloride content (%):	≤ 0.10 by mass
Segregated portion	≤ 70% of Reference mix
Compressive strength – 28 day	≥ 80% of Reference mix
Air content	≤ Reference mix +2.0%
Chloride content	Max 0.10% by mass
Alkali content	Max 1.0% by mass
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1

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Dangerous substances	NPD
Durability	NPD
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 MasterMatrix SDC I 50 Safety Data Sheet
Disposal:	Refer to MasterMatrix SDC I 50 Safety Data Sheet



0086-CPR-469071



1073-CPR-7420

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Declaration of Performance can be found at www.master-builders-solutions.com/en-gb



MasterMatrix SDC I 50

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Disclaimer

MasterMatrix SDC I 50, Master Builders Solutions UK Ltd, Version 6

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 vapour 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 UK Ltd" (the Company) endeavours 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.