

MasterLife SLS 200

Shrinkage-compensating compound in powder form, for the production of self-levelling screeds.

Material description

Shrinkage describes the external changes in the volume of concrete (contraction) which are independent of the loading and caused by changes in the water regime and the chemical reaction (hydration) of the concrete. Due to shrinkage, concrete may exhibit a severe crack development which allows the ingress of harmful substances potentially leading to decreased durability or serviceability.

MasterLife SLS 200 is a compound in powder specifically designed for the control of curing and the compensation of shrinkage of ready-mix self-levelling cementitious screeds.

Its newly developed composition reduces both the autogenous and the drying shrinkage of screeds, while maintaining the mechanical properties.

Features and benefits

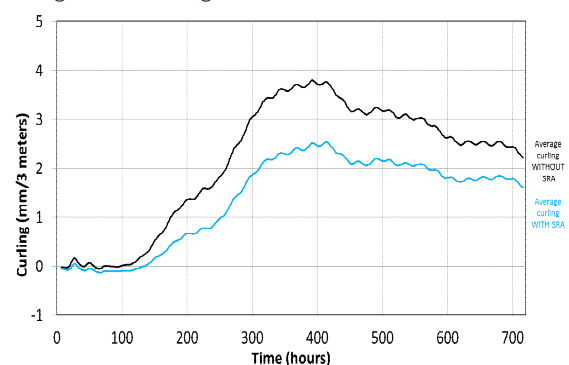
MasterLife SLS 200 allows the production of screeds with a surface of excellent quality, without bleeding and without dustiness. MasterLife SLS 200 is recommended in all the cases where it is necessary to compensate the shrinkage of self-levelling screeds and reduce the cracks derived from autogenous and hydraulic shrinkage.

In combination with the admixtures of the MasterEase range, MasterLife SLS 200 is specifically recommended for the production of self-levelling screeds hosting the pipes of underfloor heating systems, thanks to the high thermal conductivity of the cementitious composition.

The following benefits are offered:

- Easiness of placing (improvement of the working conditions).
- Screeds with low hydraulic shrinkage and without cracks, for an increased durability and serviceability.
- Screeds with compact and smooth surfaces, without any dustiness.
- Faster drying.
- Possibility to anticipate the switch on and effectiveness check of the heating systems.
- High cement compatibility.
- No impact on superplasticizer dosage.

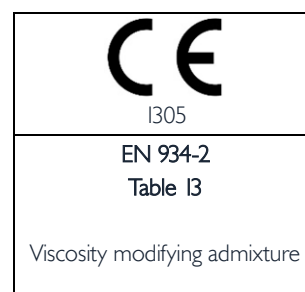
The reduction of shrinkage brings about a minimization of curling, as shown in figure 1.



Compatibility

MasterLife SLS 200 is compatible with a broad range of Master Builders Solutions admixtures, e.g. with MasterGlenium, MasterPozzolith, MasterEase, MasterAir, MasterMatrix. However, initial trial mixes are recommended to determine the optimum dosage and to ensure that the desired fresh, as well as hardened, concrete properties are achieved.

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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Dosage

The recommended dosage of MasterLife SLS 200 is 30 kg per m³ of screeds but can vary, depending on the concrete mix design and specification.

It is recommended to add also:

- 1 Kg of basalt micro fibers MasterFiber 050, per m³ of concrete;
- Superplasticizers of the range MasterEase or MasterCO₂re at the dosage needed to achieve self-levelling behavior.

- Dosages different from the above-mentioned ones may be used in special cases according to the specific job site conditions, anyway after consulting your local Master Builders Solutions Technical Services Department for advice.

Packaging and storage conditions

MasterLife SLS 200 is supplied in 15 kg bags.

MasterLife SLS 200 must be stored in dry conditions.

Technical Information	
Form	Powder
Uncompacted Bulk Density (kg/l)	0.700 – 0.900
Bulk Density (real, kg/l)	2.800 – 3.200
Essential characteristic in accordance to EN 934-2	
Chloride ion content	≤ 0.1% by mass
Alkali content (Na ₂ O equivalent)	≤ 10 %
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/mixing

The powdered compound must be accurately mixed in the truck-mixer along with cement, sand 0/4, water and, in case, filler. MasterLife SLS 200 **cannot be used alone**. The minimum amount of fines (<0.125 mm, coming from cement, filler and sand), to get a self-levelling mix, should be 550 Kg/m³.

In case the fines content did not match such value, it is recommended to add the viscosity modifying admixture **MasterMatrix SDC 150** to the concrete.

For the production of self-levelling screeds, it is recommended to use MasterLife SLS 200 along with the admixtures of the MasterEase range, since the addition of high performance water reducers allows to further reduce the phenomenon of

shrinkage and to obtain a self-leveling concrete that is homogeneous, low viscous and easy to pump and place.

In order to reduce the plastic shrinkage cracks, it is also recommended to add the basalt microfibers MasterFibers 050, that are very easy to disperse. It is anyway recommended to carry out preliminary tests in order to confirm the optimal dosage of the components and the resulting performances.

An adequate curing is indispensable to guarantee the whole shrinkage-compensating capability, especially under hot weather conditions.

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Handling and transport

MasterLife SLS 200 is highly irritant. It is recommended to avoid contact with skin and eyes and it is mandatory to use gloves and goggles while handling. For further information, please consult the Safety Sheet for this product.

Disposal

The disposal of the product must comply with current legislation and is the responsibility of the end user.

Safety instruction

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

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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