

MasterEmaco S 950

Ready/mixed two-pack polymer/modified modified thixotropic cementitious mortar, recommended for 3 to 20 mm thick surface repairs of reinforced concrete structures.

MATERIAL DESCRIPTION

Two-pack, ready-mixed, polymer-modified thixotropic medium-grade cementitious mortar containing polyacrylonitrile fibres and organic corrosion inhibitor (dispersed in component B), which is resistant to environmental agents.

FIELDS OF APPLICATION

MasterEmaco S 950 is recommended for the surface repair, with application by spraying or trowel, of concrete elements that:

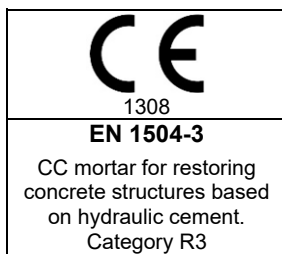
- have constructional imperfections such as voids, inferior quality exposed surface;
- show the first obvious signs of deterioration on the external surface;
- require the making good of the surface.

FEATURES AND BENEFITS

MasterEmaco S 950 also has the additional peculiar characteristics:

- easy application;
- high adhesion to the substrate;
- resistance to crazing in the plastic phase: to prevent the formation of micro-cracks in the plastic phase, MasterEmaco S 950 is enriched with PAN polyacrylonitrile fibres.

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 the following standards and the relative DoP (Declaration of Performance).



PACKAGING

A component: 25 kg bag

B component: 25 kg can

COVERAGE

20,6 kg/m² for a thickness of 10 mm (A+B).

STORAGE

Store the product, components A and B, in a dry and sheltered place at a temperature between 5°C and 35°C inclusive in their tightly closed original containers.

If component B freezes it cannot be used.

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Essential characteristic in accordance to UNI EN 1504/3	Limits and class	Performances
Compressive strength UNI EN 12190	at 28 days ≥ 25 MPa	1 day > 10 MPa 7 days > 27 MPa 28 days > 38 MPa
Flexural strength UNI EN 196/1	---	1 day > 2 MPa 7 days > 5 MPa 28 days > 7 MPa
Adhesion to the concrete UNI EN 1542 on substrate MC 0.40 (having 0.40 w/c ratio) in accordance with UNI EN 1766	$\geq 1,5$ MPa	≥ 2 MPa
Resistance to accelerated carbonation UNI EN 13295	Depth of carbonation \leq that of the reference concrete type MC 0.45 (having 0.45 w/c ratio in accordance with UNI EN 1766	Specification passed
Thermal compatibility (freeze-thaw cycling with de-icing salts) measured as adhesion UNI EN 1542 after 50 cycles UNI EN 13687/1 on substrate MC 0.40	$\geq 1,5$ MPa	≥ 2 MPa
Permeability to water measured as capillary absorption coefficient UNI EN 13057	$\leq 0,5$ kg·m ⁻² ·h ^{-0,5}	< 0,5 kg·m ⁻² ·h ^{-0,5}
Modulus of elasticity UNI EN 13412	≥ 15.000 MPa	17.000 (± 2.000) MPa

APPLICATION SHEET

PREPARATION OF THE CONCRETE SUBSTRATE

Preparation of all surfaces to be repaired is by dry or wet sand blasting to remove loose or contaminated surface parts and to ensure a minimum roughness.

CLEANING EXPOSED REBARS

If there are reinforcing bars emerging (i.e. without concrete cover) it will be essential to check the condition of the concrete that surrounds them, with particular regard to the degree of carbonation and the presence of chlorides. The cohesion and absence of contamination of this concrete will be cleaned of the bars reinforcement preferably by sandblasting. In case the concrete that wraps the bars armor is contaminated, it will need to be removed and it will therefore be necessary to adopt the intervention technique and materials congruent with the thicknesses to be restored.

CLEANING THE CONCRETE SUBSTRATE

The cleanliness and saturation of the supporting concrete does must be carried out with pressurized water (80 ÷ 100 atm e hot water in the winter). This operation is essential to prevent the concrete support remove water from the

dough. An inaccurate saturation causes loss of adhesion and cracking of the material applied. The use of pressurized water also guarantees effective cleaning of surfaces to remove dust e small inconsistent parts, which may be present later the scarification of concrete. Cleaning and saturation of surfaces are essential for obtaining high values of adhesion between support and applied material.

APPLICATION TEMPERATURE

MasterEmaco S 950 may be applied when the ambient temperature is between +5°C and +40°C inclusive. Whenever the temperature at the time of application is between 5 and 10°C, the mechanical strength will develop more slowly; it is advisable, however, to keep the bags and the cans of component B in a warm environment and to apply the mortar in the central hours of the day. For applications in cold climates, it is advisable to add the specific accelerator (chloride-free liquid) to MasterEmaco S 950 in the proportion of 1 litre for each can of component B. It is in any case inadvisable to apply the product if the temperature has dropped to 0°C at the time of application or during the hardening stage.

PREPARING THE MIX

Mixing should preferably be performed by means of a

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horizontal axis concrete mixer (in the case of spray application) gradually adding to the component A in powder (bags) component B liquid. If you use a drill with whisk it is necessary mix at low speed, so as not to favor the incorporation of air in the mortar. Mixing will have to continue until a homogeneous plastic mixture is obtained and free of lumps. Hand mixing is not recommended. With a MasterEmaco A 955 latex can (component B) of 25 kg knead 5 bags of 25 kg of MasterEmaco S 950 (ratio B / A = 20%). It is not no addition of water required. The amount of component B may vary as a function of temperature (in general the demand for component B grows as the temperature increases) and the methods applications

APPLICATION

MasterEmaco S 950 must be applied on surfaces perfectly sandblasted, clean and consistent, is allowed application on damp surfaces but without a veil of water.

Only in the case of supporting concrete surfaces particularly absorbent and / or particularly exposed at high temperatures and wind, it is recommended to moisten the support. However, it is not recommended to apply on surfaces saturated with water as occurs for example for surfaces where water has stagnated for hours. MasterEmaco S 950 must be applied in thicknesses from 3 to 20 mm manually with a trowel (small surfaces) or by means of spraying machines (extended surfaces) with auger or piston (not continuous cycle). During the stages of spray interruption (also depending on the external temperature) it is necessary to predict the accuracy cleaning the pipes and the pump itself by means of pressurized water and soft rubber ball clean pipes.

FLOATING

The float finish must be done with a sponge float at a suitable time after application according to weather conditions. The interval between application and the float finish depends on the first stiffening of the mortar; the correct moment to start the floating is when the fingers of a hand resting on the surface do not sink into the mortar but leave just a slight mark on it. A correct float finish is indispensable for effectively countering the formation of micro-cracks due to plastic shrinkage.

CURING

It is always advisable to make a correct one wet

maturation of surfaces exposed to air. In case particularly adverse conditions characterized by low relative humidity and high ventilation, both in climates hot than in cold climates, in the absence of humid ripening, the use of products from the MasterKure line is recommended

PROTECTION

To increase the overall durability of the repair work, it is advisable to apply protection over the whole structure.

The MasterEmaco protection system is accomplished with the application of MasterProtect products.

For more details contact our technical service.

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 price analysis, specifications, supplementary brochures, references, reports and technical assistance, visit the website www.master-builders-solutions.com/it-it or contact infomac@mbcc-group.com.

Scan the QR code to visit the product page and download the latest version of this datasheet.



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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.

Master Builders Solutions Italia Spa

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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.