

MasterSeal 590

Ultra-fast setting cementitious mortar for instant waterproofing of water flows.

MATERIAL DESCRIPTION

MasterSeal 590 is a ready-to-use powder product based on special cements and fine aggregates (0.63 mm). Mixed with water, it produces an ultra-fast setting mortar.

FIELDS OF APPLICATION

MasterSeal 590 is effective for:

- the immediate closure of water leaks, even under pressure, in concrete and masonry structures;
- sealing the wall-slab junction in basements before applying MasterSeal 581;
- casting resumptions of concrete structures with the elimination of discontinuities and possible water infiltrations, before waterproofing with MasterSeal 581;
- the repair of cracks and surface defects in concrete structures;
- quick anchoring of bolts, log bolts, etc.

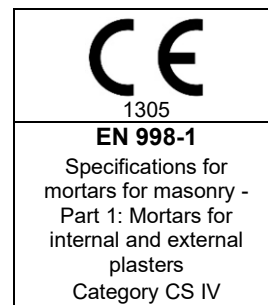
FEATURES AND BENEFITS

MasterSeal 590 is characterized by:

- ultra-fast setting: sealing, even in the presence of water, takes effect immediately (after setting 2-3 minutes at 20°C);
- very rapid development of mechanical strengths
- dimensional stability: MasterSeal 590 mortar is not subject to shrinkage or detachment due to thermal variations;
- impermeability: the high mechanical resistance guarantees the duration of the intervention for the entire life of the structure, without decreasing the initial characteristics;
- absence of chlorides: it does not contain aggressive salts for the reinforcements;
- ease of use: it only requires mixing with water, no special tools or skilled labor are required.

After about 30 minutes, MasterSeal 590 can be coated with waterproofing products from the MasterSeal range.

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 998-1 and the relative DoP (Declaration of Performance).



COVERAGE

1,6 kg per dm³

PACKAGING

5 kg can.

STORAGE

Store the product in a sheltered, dry place at a temperature anywhere between +5°C and +30°C.

Technical Information	
Mixing ratio	25% water, equivalent to 1.25 liters per 5 kg
Application temperature	+ 5°C - + 40°C
Workability time	2-3 minutes
Recoating time at 20°C	30 minutes
Consumption	1,6 kg per dm ³
Packs	5 kg can

MasterSeal 590

Ultra-fast setting cementitious mortar for instant waterproofing of water flows.

Essential characteristic in accordance to UNI EN 998-1	Limits and class	Performance
Vapor diffusion coefficient, UNI EN 1015/19		≤ 25
Capillary absorption and water penetration of the UNI EN 1015-18 hardened mortar		W0
Compressive strength, UNI EN 1015/11		a 30 minutes > 12 MPa a 24 h > 30 MPa a 28 days > 50 MPa
Adhesion to the substrate, UNI EN 1015/12 (direct traction)		≥ 2,0 MPa
Reaction to fire, UNI EN 13501/1		Class A1
Thermal conductivity λ10, dry (UNI EN 1745: 2012 tabulated value)		≤ 1,11 W/(m·K) per P = 50% ≤ 1,21 W/(m·K) per P = 90%

APPLICATION SHEET

PREPARATION OF THE SUPPORT

The substrate must be clean, free of dust, debris or any other substance that could compromise the adhesion of the MasterSeal 590 mortar.

Preferably use pressurized water for cleaning. Immediately before application, wet the support well.

Shape the section of the restoration so that the contours are cut at right angles or dovetail. The dimensions of the hollow must not be less than 1.5-2 cm.

MIXING

Put in a container the only amount of MasterSeal 590 that can be used in a single application. Add about 25% of water, equivalent to 1.25 liters per 5 kg of MasterSeal 590. Mix quickly until a homogeneous and malleable mixture is obtained. Avoid mixing MasterSeal 590 in quantities greater than that which can be used within 2-3 minutes. Do not re-knead.

TEMPERATURE

The application can take place when the ambient temperature is between + 5°C and + 40°C.

APPLICATION

Closing water comings

Open the hole or slot at least 2cm wide and 2cm deep. The edges must be cut and the section must be presented at a right angle or dovetail, avoiding V-shaped finishes. Prepare MasterSeal 590 by mixing with a trowel and knead the dough by hand until it loses its stickiness.

Apply immediately. Press the MasterSeal 590 mortar firmly into the opening and keep it in position until the end of the setting, or when it develops heat. Do not move your hand during this time.

If the opening is too large to be sealed in a single operation, repeat the application several times, proceeding from the edges towards the center.

After setting and before hardening, remove the excess mortar and cure.

Sealing of a wall-slab junction of an existing building

Prepare the junction by making a square section groove along the entire perimeter with dimensions not less than 2 x 2 cm. Prepare the MasterSeal 590 mortar and apply immediately with a rounded tip trowel.

Anchoring of bolts and metal profiles

Prepare a suitable hole for recessing the bolt or profile, so that this is free in all directions for at least 1 cm. Prepare the MasterSeal 590 mortar and apply until the hole is completely filled. Immediately insert the bolt or metal profile. Level by removing the excess mortar and season. Do not apply forces to the bolt or profile for at least 5 hours from the end of the installation.

Flexible pipe-structure sealing

Make a recess a few centimeters deep around the pipe. Apply a first layer of MasterSeal 590 in the deepest part of the recess, creating a pipe-structure connection.

Make a layer of MasterSeal 910 hydro-expanding mastic, insulated on both sides with non-stick tape. Complete and finish with MasterSeal 590.

MasterSeal 590

Ultra-fast setting cementitious mortar for instant waterproofing of water flows.

The application of MasterSeal 590 in cracks or wall-slab type joints must not exceed 30 mm in width and 25 mm in depth; do not apply MasterSeal 590 on an icy substrate if the temperature is below 5°C or if it is expected that it will drop below 5°C in the next 24 hours. In case of high temperature, use cold water or even ice to delay setting.

CURING

Under normal atmospheric conditions, the MasterSeal 590 mortar requires curing for about 30 minutes. It is recommended to use damp cloths or water spray to keep the application wet in the case of large dimensions (wall-slab junctions).

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.



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

Via Vicinale delle Corti, 21 – 31100 Treviso – Italia

T +39 0422 429200 F +39 0422 421802

www.master-builders-solutions.com/it-it

e-mail: infomac@mbcc-group.com

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.