# MACLIM 100-200

Tech. Sh. IMP20

technologies and materials for waterproofing

## Plasto-elastic, inorganic waterproofing coating

Description

MACLIM 100 and MACLIM 200 are inorganic waterproofing coatings produced with selected aggregates, hydraulic binders, additives and polymers (component A) to be mixed with elastomeric resin (component B). MACLIM 100 – 200 applied manually, both rapidly and in a practical manner are characterised by high flexibility, strength and adhesion to the substrate.

MACLIM 100 and MACLIM 200 allow for the production of waterproofing coatings with thicknesses of 2-3

mm on surfaces with crack-bridging capacity up to 1.2 mm, depending on which materials are used. These products are compliant with EN 1504-2.

## Fields of application

MACLIM 100 and MACLIM 200 are formulated to ensure high adhesion to substrates and can also be used in situations presenting low compatibility with normal cement-based coatings. Due to their high flexibility they can be used on structures subject to micro-fracturing or on structures already presenting micro-damage. Typical applications:

- Coating and waterproofing of walls below ground level, tanks, pipelines, swimming-pools etc.
- Coating for the protection of structures (also prefabricated) subject to warping and cracking.
- Waterproofing of terraces, balconies and shower boxes before laying a ceramic covering.
- Owing to its high flexibility, MACLIM 200 is particularly suitable for the waterproofing of tanks, baths, swimming-pools and pipelines

## Advantages

MACLIM 100 and MACLIM 200 are two-component products featuring:

- Easy application and an excellent yield.
- High chemical resistance against aggressive atmospheres, polluted water, salts etc.
- Excellent resistance to freeze/thaw cycles.
- Good impermeability with respect to water and carbon dioxide, and a high level of vapour permeability (allowing for the disposal of residual humidity which may be present in the substrate, avoiding the formation of bubbles and peeling).
- Application also on damp substrates or recently-produced casting layers.
- Application on surfaces with micro-fractures.

## technica data

	MACLIM 100	MACLIM 200
Spec. weight of mix	1,7 g/cm³	1,7 g/cm³
Pot life (23°C)	40 min	40 min
Recommended thickness per coat	up to 2 mm	up to 2 mm
Adhesion to concrete	≥ 0,8 N/mm²	≥ 1,1 N/mm²
Elongation at breakage	≥ 30%	≥ 40%
Water permeability (pos. press.)	≥ 0,1 N/mm²	≥ 0,15 N/mm²
Crack-bridging capacity	> 0,5 mm	> 1,2 mm
Water-vapour permeability	Sd < 5 m	Sd < 5 m
Reaction to fire	C,s1-d0	
Application temperature	from +8°C a +35°C	

# Instructions for use

# Preparation of the substrate

To apply MACLIM 100 -200 correctly it is necessary to prepare the substrate properly, removing all loose parts, including cement laitance, efflorescence, oils, paint, release agents etc by pressure washing or using other suitable methods. Roughen the substrate surface if it is too smooth.

Missing volumes (reinforcement covering etc) must be previously reconstructed with CONCRETE ROCK thixotropic mortar following application over reinforcing rods of the FERROSAN protective agent. Moisten with water (to the point of refusal) surfaces that are highly absorbent or, in particularly hot climates, eliminating any stagnant water.

Preparation of the product

Pour component B (liquid) into a clean container and gradually add component A (powder) according to the established mixing ratio. Mix for 3-4 minutes using a low-speed drill, let the mixture rest for a few minutes and then stir again until a homogeneous, lump-free paste has been obtained. Do not prepare the mixture manually. The mixed product must be applied within about 40 min (at 23°C). Higher temperatures will reduce the pot life. If during application the product is too dense, it is advisable to mix it again by means of mechanical stirring. Avoid to add water.

Laying

MACLIM is applied manually, using a trowel or metal spatula. We recommend a thickness of up to 2 mm per coat. Subsequent coats should be applied 6-8 hours after hardening. The insertion of a reinforcing membrane or mesh MAC NET elastic synthetic fibre between two coats will improve mechanical performance and allows for better control of the thickness of the product applied, especially on areas that are micro-fractured or subject to heavy strain (terraces, pools etc). In joints between walls and floors or at points of interruption or a division in flooring use a MAC JOINT elastic joint-covering band. In structures to be backfilled, after laying waterproofing it is advisable to use a protection with TNT (300 g/m²). Following application, tools must be cleaned with water before the product hardens.

Consuption

The yield is approximately 3,5 Kg/m<sup>2</sup> for a thickness of 2 mm.

**Packaging** 

MACLIM Comp. A in bags; MACLIM Comp. B in cans. The mix ratio is indicated on the packaging.

## **Precautions**

Do not apply thicknesses of more than 2 mm for each layer.

Hot climates

- The product should be kept in the shade before, during and after mixing (T< 35°C).
- Carry out work in the early hours of the morning, interrupting operations during the hottest hours.
- In the case of strong sunlight, work should begin in the late afternoon on the condition the structure has been subjected to continual wetting for at least one hour before work begins.
- Provide for adequate protection of the coating for the first 24 hours, and possibly apply continuously wettened sheeting.
- In the case of high temperatures workability times will be reduced; the product must be thus applied quickly and without interruption.

Cold climates

- Store the product in a preferably heated environment.
- Do not apply the product at an ambient temperature lower than 8°C or on a freezing substrate.
- Start work late in the morning.
- Protect the applied product from freezing, covering it with impermeable, insulated sheets.

Storage

MACLIM can be preserved in the sealed original packaging and in a dry protected environment for at least 12 months. Protect Comp. B from frost.

## **Specifications**

### Type of intervention

Waterproofing, recovery and protection of concrete surfaces, old or new, such as terraces, balconies, pools, etc, presenting micro-fissures or which are also subject to post-cracking.

#### **Technical specifications**

The supply and laying, following appropriate preparation of the substrate, of a high-flexibility, plastoelastic, inorganic waterproofing coating of the MACLIM type. The material must have an adhesion to concrete  $> 0.8 \text{ N/mm}^2$ , and a positive water-tightness  $> 0.1 \text{ N/mm}^2$ . The product will be applied at a rate of approx 3,5 Kg/m² or more, depending on the type of surface, and with one or more coats, using a spatula, with a thickness of at least 2 mm and if necessary with the insertion of a membrane or synthetic mesh  $\notin$ /m²



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