

MasterShield 305

Water-repellent impregnation for the protection of exposed concrete and masonry surfaces.

Material description

MasterShield 305 is a water-based siloxane emulsion designed to protect absorbent concrete and masonry surfaces intended to be left exposed by making them water-repellent.

Main uses

The water-repellent impregnating agent **MasterShield 305** is suitable for the following types of application:

- water-repellent impregnation of substrates such as concrete, cement-based mortars, natural stone or bricks;
- protection against moisture for vertical and/or horizontal surfaces exposed to the elements, such as façades, walls, pillars and exposed brickwork;
- protection of surfaces against freeze-thaw cycles and contamination from chlorides present in de-icing salts.

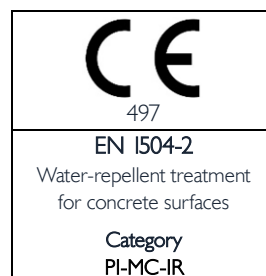
If the project involves specific service conditions, please always contact the Master Builders Solutions Technical Service for approval of the application.

Features

- Resistant to **alkalis and UV rays**.
- **It does not form a film** on the surface and is permeable to water vapour.
- **Colourless**. It does not alter the colour of the surface to which it is applied. However, a preliminary test is recommended, particularly on natural stone surfaces.
- Solvent-free. It is non-flammable and does not have any narcotic effects on the user.
- **Prevents moisture penetration** into surfaces normally exposed to rain, reducing capillary absorption and thus the ingress of water into these surfaces. Improves resistance to freeze-thaw cycles.
- **Prevents biological growth** on surfaces caused, for example, by mosses and lichens, by reducing the moisture content in the outer layer of the treated surfaces.
- **Reduces the penetration of chlorides**, thereby improving the durability of reinforced concrete structures.

- Prevents the formation of **efflorescence**.

In compliance with the European Regulations (EU No. 305/2011 and EU No. 574/2014), the product is CE marked in accordance with UNI EN 1504-2 and the relevant DoP (Declaration of Performance).



Consumption

Indicatively between 0.1 and 0.3 kg/m².

Consumption may vary depending on the absorbency of the substrate and the equipment used for application; we therefore recommend carrying out a preliminary test to determine the exact consumption.

Packaging and storage

MasterShield 305 is available in 25 kg cans.

Keep the products in their original packaging in a dry, protected location at a temperature between +5°C and +35°C. Do not expose to direct sunlight.

Under the above conditions, the products have a shelf life of 12 months.

Preparation and method of application

Preparing the substrates

- The concrete surface to be coated with **MasterShield 305** must be perfectly clean, solid, without degraded, loose or detached parts, without irregularities that could compromise the application of the product, and free of cement laitance, traces of release agents, or any substance that could affect the adhesion of the product to the substrate.

MasterShield 305

Water-repellent impregnation for the protection of exposed concrete and masonry surfaces.

- Before applying **MasterShield 305**, make sure that the substrate is free of dust and dry, with a surface temperature above +5°C and, in any case, always above the dewpoint.

Preparation of mortar

MasterShield 305 is ready to use and can therefore be applied without prior mixing or dilution. The product simply needs to be lightly mixed using a low-speed mixer.

Installation

For manual application using a brush or roller, or spray application using a suitable machine, **MasterShield 305** can normally be applied in a single coat.

Cleaning of equipment

To clean tools whilst the product is still fresh, use fresh water and soap.

Ageing and maturation

Protect surfaces treated with **MasterShield 305** from contact with water for at least 4 hours after application.

Application temperatures

Application environment temperature needs to be between +5°C and +35°C.

Warnings

- Do not apply **MasterShield 305** whilst the surfaces are directly exposed to strong sunlight.
- Do not apply **MasterShield 305** to surfaces that are in direct and permanent contact with water or pressurised water.
- Do not apply **MasterShield 305** if rain is forecast within the next 12 hours, or if temperatures are expected to drop below 5°C within 12 hours of application.
- If you wish to apply a top coat or paint over **MasterShield 305**, you must create a test area to check the adhesion between the different products.

Technical data

Product identification data	
Texture	Liquid
Colour	Colourless and transparent
Density (+20°C)	1.00 ± 0.02 g/cm ³
Type of protection	Water-repellent - Oil-repellent
Chloride content:	≤ 0.1 %
pH (+20°C)	5 ± 1

MasterShield 305

Water-repellent impregnation for the protection of exposed concrete and masonry surfaces.

Performance – UNI EN 1504-2

(The performance values shown below are obtained in accordance with UNI EN 1504-2)

Feature	Test method	Regulatory requirement	Product performance
Penetration depth	EN 14630	Class I: < 10 mm	Class I: 6.8 mm
Water absorption AR	EN 13580	Absorption ratio < 7.5%	6.5 %
Drying rate coefficient	EN 13579	Class I: >30%	Class I

Safety instructions

For guidance on the correct and safe use, transport, storage and disposal of the product, please see the latest Safety Data Sheet (SDS).

Other services

For additional technical information, brochures, references, technical reports and technical assistance 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 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.

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@masterbuilders.com