

# MasterPel 708

Hydrophobic agent, efflorescence inhibitor and aesthetics enhancer for the production of Manufactured Concrete Products (chloride free).

## Description and application field

MasterPel 708 is an admixture in emulsion, specifically designed for the production of elements made of semi-dry concrete, like paving stones, flags, blocks, kerbstones, roof tiles, pipes etc.

MasterPel 708, added to the concrete mix, guarantees a strong and durable hydrophobic effect, thanks to the formation of chemical bonds in the proximity of the pores' walls. By avoiding the migration of water, which can contain calcium hydroxide and other salts, to the surface of the concrete elements, it inhibits the formation of efflorescence.

The inner pores are protected, but not filled, therefore the vapor permeability is not compromised.

The application of MasterPel 708 as admixture in the mass of concrete can guarantee, as compared to the use of surface treatments, a protection that is homogeneous and distributed over the entire element, with consequent improved durability. By hydrophobizing the surface, MasterPel 708 also inhibits the adhesion and entry of many soiling agents, thereby ensuring an overall protection of the elements. Additionally, MasterPel 708 improves the brilliancy of the colored products like paving stones, slabs, blocks etc. Altogether, the employ of MasterPel 708 determines a general enhancement of the aesthetics of manufactured concrete products (MCP).

## 4 VALUES

MasterPel 708 is one component of the **4 VALUES** concept, based on the four values that are of paramount importance for the producers of concrete elements made of concrete with earth-moist consistency:

### Economy

Optimization of the concrete mix design, shortening of the production cycle, reduction of scrap.

### Performance

Improved performance of the finished elements according to the requirements of the European Standards (EN 1338, EN 1339, EN 1340 etc), with particular regard to water absorption, that is minimized.

### Aesthetics

Better closure and finish of the surface of the elements, improved chromatic effect.

### Durability

Increased resistance to freeze-thaw in the presence of de-icing salts and to abrasion.

## The mechanism of action of MasterPel

Unlike the traditional hydrophobic agents, based on fatty acids, which physically fill the inner pores of concrete, MasterPel 708 protects the pores with a thin hydrophobic layer, supported by the formation of chemical bonds. Such protective layer on the pores has a long-lasting effect. The water absorption, as determined according to the European Standards (EN 1338, 1339 e 1340, EN 771), is significantly reduced.

MasterPel 708 does not have any significant impact on the early and ultimate mechanical strengths of the elements.

## Characteristic performance and benefits for the producer

The 4 VALUES concept and the use of MasterPel 708 offer to the producers of Manufactured Concrete Elements (MCP) relevant advantages both in the manufacturing process and in the final products characteristics.

MasterPel 708 offers the following performances:

- it ensures the hydrophobicity of the elements;
- it prevents the formation of efflorescence;
- it maintains the natural, non-glossy aspect, of the concrete elements;
- it reduces the water absorption (according to EN 1338, 1339, 1340 ed EN771);
- it increases the brilliancy and homogeneity of color.

It is recommended, along with MasterPel 708, the use of the other products, specific for the production of dry consistency Manufactured Concrete Products (MCP):

- MasterCast for the improvement of the compactability and



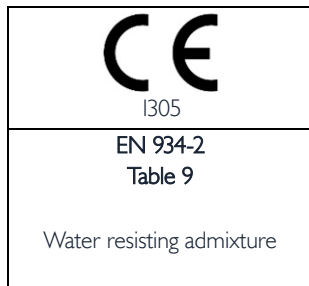
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for the optimization of the concrete mix composition, in a logic of savings and sustainability;

- MasterFinish for the care and protection of mixers, equipment and boards.

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).



## Dosage

The recommended dosage for MasterPel 708 is ranging between 0.2 – 1.0 liters per 100 kg of cement.

Other dosages may be used in special cases according to specific job site conditions. In this case, please consult our Technical Services Department.

## Packaging and storage

MasterPel 708 is available in drums (208 liters), IBCs (1.000 liters) and in bulk, truck-delivered. 10 liters canisters are available as test samples.

Keep the product indoor, avoiding exposure both to high temperature (higher than 30°C) and to direct sunlight. Avoid temperatures below +5°C. Once the product has been frozen, it is no more suitable for use.

Under the described conditions and in the original un-opened packaging, MasterPel 708 has a shelf life of 6 months.

For specific storage advice, consult our Technical Services Department.

Technical information	
Form	Liquid, emulsion
Density (g/ml at 20°C)	1.00 +/- 0.02
Essential characteristic in accordance to EN 934-2	Performance
Chloride ion content	≤ 0.1% by mass
Alkali content (Na <sub>2</sub> O equivalent)	≤ 0.5%
Corrosion behavior	Contains component only from EN 934-1: 2008 Annex A.1
Compressive strength	28 days ≥ 85%
Air content	≤ 2.0 %
Capillary absorption	7 days curing, 7 days tested ≤ 50% 90 days curing, 28 days tested ≤ 60%

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## Directions for use

MasterPel 708 is a ready-to-use admixture and has to be added to the concrete along with the final water.

## 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](http://www.master-builders-solutions.com/it-it) or alternatively contact [infomac@masterbuilders.com](mailto: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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