

IDROCRETE HP

Water-repellent admixture for concrete



PRODUCT DESCRIPTION

Idrocrete HP is a liquid admixture made of a new generation of water-repellent components when added to concrete mixes improve the resistance of the concrete.

HOW IT WORKS

Idrocrete HP reacts with the calcium hydroxide to form a thin, water-repellent film that is distributed on the walls of the capillary pores. Even though the pores remain open, the protective film prevents the ingress of the water in non-hydrostatic condition.

When **Idrocrete HP** is added to the mix, it is distributed throughout the entire mass of the concrete, and the exposed surfaces are protected from effects of weather.

WHERE TO USE

Idrocrete HP may be used with any type of concrete when an increase of water repellence is required.

Idrocrete HP may be successfully used in applications such as:

- masonry concrete;
- concrete for retaining walls;
- concrete for underground structures;
- foundations;
- basements, pits and lift wells.

To improve the water-repelling affect, it is strongly recommended to use **Idrocrete HP** in combination with a super-plasticising admixture to reduce the water/cement ratio and the presence of capillary pores.

TECHNICAL CHARACTERISTICS

Idrocrete HP is a blend of active compounds that reacts with the lime to form a thin, continuous polymer layer that is distributed over the surface of the concrete and acts like a water-repellent film. The special formulation of **Idrocrete HP** allows to control the total amount of air entrapped onto the concrete.

Idrocrete HP reduces the capillary absorption rate of concrete and sometimes the permeability, when the hydrostatic pressure is absent water is either not under pressure or very low.

HOW TO USE

Add **Idrocrete HP** to the concrete mix together with all the other components (cement, admixtures, water and aggregates) or as a delayed addition at the end of the batch sequence. After adding **Idrocrete HP**, we recommend extending the mixing time so that it is dispersed evenly throughout the mix.

COMPATIBILITY WITH OTHER PRODUCTS

To get the best effect from the product, we recommend using **Idrocrete HP** in combination with:

- plasticising and super-plasticising admixtures from the **Maapeplast**, **Maapefluid**, **Dynamon** and **Vibromix** ranges.

This product is also compatible with other MAPEI admixtures used in the production of high quality concrete:

- set-retarding admixtures from the **Mapetard** range to extend and maintain the workability of concrete such as;
- chlorine-free, hardening-accelerator admixtures from the **Mapefast** range to achieve very high mechanical strength after short curing cycles, even in cold climates;
- viscosity-modifying admixtures from the **Viscostar** and **Viscofluid** range used to make self-compacting concrete;
- **Expacrete** expanding agent used in the production of shrinkage-compensated concrete;
- fly-ash and lime-based fillers used to produce conventional and self-compacting concrete;
- form-release compounds from the **Mapeform Eco** and **DMA** range for demoulding concrete;
- curing agents from the **Mapecure** range used to protect concrete against quick evaporation of mixing water;
- air entrainer agents from the **Mapecair** and **Mapeair AE** range used in the production of concrete resistant to freeze/thaw cycles.

DOSAGE

Dosage in volume:

from 0.8 to 2.5 litres per 100 kg of cement.

Different dosage rates to those recommended above must be tested beforehand on concrete and, in all cases, only after consulting MAPEI Technical Services Department.

PACKAGING

Idrocrete HP is available in bulk quantities, 1000 litre tanks and 200 litre drums.

STORAGE

Idrocrete HP must be kept away from freezing weather, preferably at a temperature of +8°C to +35°C. The product maintains its properties for at least 12 months if kept sealed in its original packaging. Although the product may change colour slightly if exposed to direct sunlight its technical characteristics will not be affected.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Idrocrete HP is not considered dangerous according to the current norms regarding the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemicals. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	pearly
Density (g/cm ³):	1.0 ± 0.02
Classification according to EN 934-2:	water resisting admixture - Table 9
pH according to ISO 4316:	9.4 ± 1.0
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na ₂ O equivalent) according to EN 480-12 (%):	< 2

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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