

Mapecrete Drain L

Liquid admixture for pervious concrete

DESCRIPTION OF THE PRODUCT

Mapecrete Drain L is a water-based emulsion of specially combined copolymers used to improve the properties of ready mix pervious concrete.

Mapecrete Drain L is like an off-white, very fluid latex and must be added into pervious concrete during the mixing process.

WHERE TO USE

The special formulation of **Mapecrete Drain L** improves the pervious concrete's performance and quality and increases its durability.

Pervious concrete is a mixture of gravel, water and cement with zero or a very low content of fine particles. This type of concrete has a large number of inter-granular and inter-connected voids that make the material highly permeable, allow rainwater to pass through, reducing the phenomena of water-flow and flooding on the surface.

Pervious concrete is advantageous for:

- car-parks with light traffic;
- pavements and pedestrian areas;
- paths through parks and woodland;
- base layers for roads.

TECHNICAL CHARACTERISTICS

Mapecrete Drain L is a mixture of copolymers and secondary components which, when added to both fresh and hardened pervious mixture, considerably improves its properties.

Mapecrete Drain L increases the cohesion of the mix, making it easier to spread with asphalt pavers, screeds or hand tools. When used for building roads, it reduces the risk of the free edges yielding during the pouring phase.

The physical and mechanical properties of hardened pervious concrete increase in proportion to the quantity of **Mapecrete Drain L** added. Test results are the following:

- higher mechanical strength;
- higher flexural-tensile strength;
- lower modulus of elasticity;
- higher resistance to de-icing salts and freeze/thaw cycles.

Improved physical properties at the hardened state extend the service life of pervious concrete.

Mapecrete Drain L could reduce the workability of fresh concrete and it is recommended a combination of **Mapecrete Drain L** and a set-retarding admixture from the **Mapetard** range in hot weather.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	liquid
Colour:	white
Density according to ISO 758 (g/cm ³):	1.02 ± 0.02
pH according to ISO 4316:	5.5 ± 1
Water-soluble chloride content according to EN 480-10 (%):	< 0.01 (absent)

HOW TO USE

- Prepare the concrete according to the specified design mix.
- Add **Mapecrete Drain L** and mix until completely blended into the mixture.
- Add any other admixtures required separately.

RECOMMENDATIONS

- It is recommend to add **Mapecrete Drain L** to the mixing water and to blend the components until the concrete is completely mixed.
- The durability of pervious concrete admixed with **Mapecrete Drain L** is only guaranteed if a suitable system has been installed on the base layer of the road or path to collect and carry rainwater away.
- To guarantee the drainage capacity of the concrete over the years and extend its efficiency when in service, periodic maintenance works must be scheduled to clean the inter-connecting cavities in the structure of the pervious concrete.

COMPATIBILITY WITH OTHER PRODUCTS

Mapecrete Drain L is compatible with all types of cement specified by EN 197-1 standards and all types of mineral admixtures. **Mapecrete Drain L** must only be used when mixing pervious concrete and is compatible with other admixtures from the MAPEI range, particularly:

- chloride-free, hardening accelerating admixtures from the **Mapectard** range to

achieve very high mechanical strength after short curing cycles;

- set-retarding admixtures from the **Mapectard** range to extend the workability retention of concrete;
- form-release agents from the **DMA** range and **Mapeform Eco** to strip formwork from concrete;
- curing agents from the **Mapecure** range to prevent mixing water evaporating too quickly from concrete structures without formwork (floors).

The product performance may change, depending on the surrounding weather conditions when pouring the concrete and the curing technique used.

CONSUMPTION

Dosage by weight:

between 0.7% and 4% of total binder weight as per concrete performance characteristics. Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI's Admixture Department.

PACKAGING

The product is available in 1,000 kg tanks and 25 kg drums.

STORAGE

Mapecrete Drain L can be stored for 12 months in sealed containers protected from frost. If the product is exposed to direct sunlight, the colour may change without altering its technical properties and performance.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapecrete Drain L is not considered hazardous according to current regulations regarding the classification of mixtures. It is recommended to use 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.

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.com

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