

MAPECRETE LI HARDENER

Liquid surface treatment with densifying effect for new or old concrete floors and concrete surfaces finished with mineral hardener



DESCRIPTION

Mapecrete LI Hardener is an aqueous solution based on modified lithium silicates, developed in the R&D MAPEI laboratories, used for the surface treatment of internal and external, cement based supports.

TECHNICAL CHARACTERISTICS

Mapecrete LI Hardener penetrates into the pores of the substrate and reacts with the free lime that is normally produced during the hydration phase of the cement. This reaction produces highly resistant insoluble hydrated calcium silicates which increase the compactness and the strength of the cement matrix. The treated surface is easy to clean and maintain.

The treated surfaces are characterized by:

- improved abrasion resistance;
- improved chemical resistance;
- anti dust;
- reduction in the absorption of water and liquids in general and of the salts dissolved in them, such as chlorides which would be harmful to any metal reinforcements;
- permeability to water vapour;
- resistance to UV and weathering;
- reduced dirt retention and stain formation.

ADVANTAGES

- ease of use and application;
- the treated surface is easy to clean and maintain;
- improves the aesthetics of the treated surface by making it slightly shinier and protecting it from the formation of stains and efflorescence;
- increases the durability of concrete flooring;
- reduces the phenomenon of alkali-aggregate reaction (pop-out), in presence of alkali-reactive aggregates in the substrate;
- protects from de-icing salts, weathering, and freeze-thaw cycles.

WHERE TO USE

Mapecrete LI Hardener is suitable for new or existing cementitious floors, also those finished with surface mineral hardeners (such as those from the **Mapetop** range of products) and it is widely used in the industrial, residential, and tertiary sectors, such as:

- hangars, garages, parking areas;
- malls, public areas;
- workshops, mechanical industries, manufacturing industries in general;
- warehouses, logistic areas, external areas;
- artisan workshops;
- restaurants, schools, museums etc.

RECOMMENDATIONS

- Do not apply **Mapecrete LI Hardener** on very dusty, crumbling or flimsy substrates.
- Do not apply **Mapecrete LI Hardener** on substrates with oil or grease stains or stains in general.
- Before applying **Mapecrete LI Hardener**, check the surface of the substrate is even dry, with no residual moisture or water stagnation.
- It is always suggested to carry out a preliminary test on a small portion of the surface to check for the presence of any non-visible and/or incompatible contaminants.
- If a subsequent resin system is planned to be applied on the treated surface, it is always necessary to carry out specific mechanical preparation before laying the resin products and carry out preliminary tests on a small portion of the surface to verify adhesion and compatibility.

APPLICATION PROCEDURE

Mapecrete LI Hardener can be applied on new, just 2-3 days after casting the concrete, and on existing floors, also those finished with surface mineral hardener. The application must be done after cutting the contraction joints.

Mapecrete LI Hardener can also be used in the final phases of the operation process for polished floors. The cementitious substrate must be sound, perfectly clean, dry and free of all traces of dust, film-forming curing products, old resin systems, friable parts etc.

Mapecrete LI Hardener can be applied by low pressure pump spray or poured directly on the floor and then immediately evenly spread out. The treated surface must be kept constantly wet with **Mapecrete LI Hardener** for at least 20-30 minutes; it is very important to avoid the formation of dry areas to allow correct and uniform penetration of the product.

At the end of this phase remove any excess of product and the treated surface must be dried. Once these operations are completed, it is recommended not to transit on the floor for at least 24 hours.

CLEANING

Tools used to prepare and apply **Mapecrete LI Hardener** can be cleaned simply with water. Once hardened, the product may only be removed using mechanical means.

CONSUMPTION

0.2-0.4 kg/m² Product consumption is strongly influenced by the type of support, its absorbency and the ambient conditions during the application .

PACKAGING

25 kg jerrycan.

STORAGE

12 months in its original sealed packaging in a dry area at a temperature between +5°C and +40°C. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency:	liquid
Colour:	transparent
Density:	1.1 g/cm ³
Ion chloride content - minimum requirement $\leq 0.05\%$ – according to EN 1015-17:	$\leq 0.05\%$
pH - ISO 4316:	11

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.

TECHICAL SPECIFICATIONS

Supply and installation of aqueous solution based on modified lithium silicates (such as **Mapecrete LI Hardener** by MAPEI S.p.A.), for the surface treatment with a densifying effect of new or existing concrete floors and concrete surfaces finished with surface mineral hardener (such as products from the **Mapetop** range by MAPEI S.p.A.). The use of the product, which will be carried out by spraying with a low-pressure pump or by spreading it evenly on the flooring to be treated, will result in a significant increase in resistance, durability and ease of cleaning and maintenance, as well as reduced absorption of liquids in general and reduced formation of stains or efflorescence.

The product must have the following characteristics:

Consistency:	liquid
Colour:	transparent
Density:	1.1 g/cm ³
Ion chloride content - minimum requirement $\leq 0.05\%$ – according to EN 1015-17:	$\leq 0.05\%$

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