



# PENTASIL LI 7

## Water solution of lithium silicate for floorings

Technical Data Sheet August 2018

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### DESCRIPTION

**Pentasil LI 7** is composed of a water solution of modified and stabilized lithium silicate for treating and waterproofing cement floorings. The ability to penetrate in the porosities of the cementitious product allows the additive to react with the free lime of the cement, thus creating a microstructure resistant to abrasion. The treated and polished flooring has an anti-dust effect, which resists to stains and efflorescences.

### FEATURES

**Pentasil LI 7** is an inorganic product with a very low viscosity. Thanks to this, it can penetrate deeply into the support and block the potential efflorescences inside the cement-based artefact, thus blocking their migration toward the surface.

The consolidating and waterproofing action of **Pentasil LI 7** is due to the settling of the microparticles of silica in the porosities and the capillaries of the support, as well as to the combined reaction between the components of the product, the salts, and the carbon dioxide in the air.

The double action of **Pentasil LI 7** produces a partial obstruction of the porosities and the capillaries, which blocks the migration of the salts but not of the water in the form of vapour.

Since **Pentasil LI 7** is composed of lithium silicates very reactive with the cement free lime, it creates a very compact microstructure, increasing the mechanic resistances of the artefact. Thus, **Pentasil LI 7** is recommended particularly for consolidating concrete floorings with an anti-dust effect.

Since the product does not produce films, it does not create a continuum layer and so it is not subject to scratches and detachments.

Moreover, since it is water soluble, it can be applied in places with low levels of ventilation and in places where solvents products could not be used.

### USE

**Pentasil LI 7** can be applied on cement surfaces at least 2-3 days old. In case of application on concrete surfaces, please make sure the cuts for joints have already been made.

Before applying the product, the surface must be clean, dry, without dust, and without stains of oil, fats, or other substances such as anti-evaporant filming agents that could hinder the penetration of the product.

**Pentasil LI 7** can be applied by roller, it can be sprayed with a low-pressure pump, or poured directly on the surface and laid immediately in a homogeneous way.

In all these cases, it is important to leave **Pentasil LI 7** in contact with the surface for the longest time possible (20-30 minutes) in order to let it penetrate deeply. So, it is important that the surface is always well wet and there are no heterogeneities of treatment with dry zones.

	Data	Method
TECHNICAL DATA	<b>State:</b>	Liquid
	<b>Colour:</b>	Colourless
	<b>Bulk density:</b>	1.080 ± 0.01 kg/dm <sup>3</sup>
	<b>Hydrogen Ion concentration (pH):</b>	11.5 ± 0.5
	<b>Water solubility:</b>	Totally soluble
	<b>Dry matter content:</b>	12.5 ± 2.5%

**YIELD** Yield depends on the porosity of the support. However, consumption is never higher than 0.500 l per m<sup>2</sup>.

**STORAGE AND VALIDITY** If it is sheltered in the original cans kept perfectly closed and stored in protected places at temperatures between +5°C and +40°C, **Pentasil LI 7** has a 12 months validity from the date on the delivery note.

**PRECAUTIONS** **In the unaltered state, the product is not considered dangerous according to the current regulations. However, it is suggested to use rubber gloves, protective goggles, and protective garments during its use.**  
 In case of contact with the eyes, wash them immediately with plenty of water for at least 15 minutes. If the irritation persists, consult a doctor.  
 In case of contact with the skin, wash immediately with plenty of water.  
 In case of ingestion or inhalation, consult a doctor.  
 Do not disperse the product and its cans in the environment.  
 For more information, please consult the security data sheet.

**PACKAGING** 25 kg jerrycans.

The specifications stated in this report have been got either through standardized tests and rules or their modifications following Pentachem systems. The methods applied can be requested to our technical service.

All the data stated in this technical sheet are based on our knowledge and experience. However, before using the item differently from indicated, it is advisable to carry out preventive tests. In any case, PENTACHEM does not assume any responsibility for any damage or defect caused by the use of our products, as the employment conditions are not under our control. We also inform that our technical service is at our customers' disposal for any information concerning the correct employment of our products.

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