

**A priming and strengthening preparation for matured concrete surfaces based on lithium silicate.**

Product description	Colorless liquid based on highly concentrated lithium silicate, penetrates deeply into outer layer of concrete and reacts with calcium compounds, forming a water-insoluble gel. As a result, it fills the concrete pores and - by that meaning - it brings sealing and hardening of concrete floor at area of the formulation application.	
Scope of application	The agent is designed to cure and seal the matured internal concrete floorings in warehouses, distribution and shopping centres, offices complexes, food processing plants, slaughterhouses, breweries, chemical plants, parking garages etc. Applicable to polishing / diamond grinding processes of concrete floors. It is not recommended to use the agent on the fresh concrete.	
Properties	<ul style="list-style-type: none"><li>• growth of mechanical resistance of treated concrete surface (resistance to abrasion - up to 30% and surface hardness - up to 10%),</li><li>• sealing of concrete surface (inhibition of moisture deep penetration),</li><li>• reduction of surface concrete porosity,</li><li>• improvement of concrete floor aesthetic (easier to keep clean, increasing of light reflectance, increasing of surface gloss due to regular using and maintaining),</li><li>• elimination of dusting,</li><li>• improvement of coatings adhesion such as paints.</li></ul>	
Product features		
Appearance	colorless liquid	
Packaging	Plastic cans 20 l, barrels 200 l	
Shelf life	Shelf life of the product equals 12 months (listed on the package)	
Storage conditions	Store product in a dry places at temperatures between +4 ° C to +38 ° C	
Technical data		
Color	Colorless	
Odor	Odorless	
Emissions of volatile organic compounds (VOC)	0 g/l	
Clarity	Clear	
Freezing point [°C]	0	
Flammability	Non-inflammable	
Amount of layers	1-2	
Mechanical properties	The average % of improvement in relation to uncoated control samples	
	Resistance to abrasion, ASTM D4060	
	200 rev.	Improvement – up to 30 %
	300 rev.	Improvement – up to 30 %
	Hardening, ASTM C805	
	Improvement - up to 10 %	
Application		
Coverage rates	The consumption of the agent is closely dependent on the porosity of the concrete and the related possibility of penetration, as well as weather conditions. Typical performance for machine trowelled floorings its 10-15 m <sup>2</sup> /l, i.e. consumption of 0.10 – 0.07 l/m <sup>2</sup> . More porous or destroyed surfaces will require higher doses of the product and a double application.	
Substrate preparation	Surface should be free from standing water, remnants of old coatings, dust, dirt, products containing wax, resins and sealants. Product should not be used on latex or epoxy concrete - polymer modified. The surface should be cleaned using a scrubbing brush machine with a nylon bristles. Prior to application, secure surrounding areas using e.g. polyethylene film.	
Applying	<ul style="list-style-type: none"><li>• an appropriate way of determining the optimal consumption of the product (with respect to a specific area) is a few tests realization using different doses of the formulation. The best results are obtained when the preparation is dry after 15-20 minutes (longer drying time points out its overdosage and may results discoloration of the surface, and shorter drying time means deficiency of formulation which reduces declared product properties),</li><li>• it can be applied by means of low pressure manual sprayer on small areas and it must be immediately trowelled evenly with an applicator of microfiber, not allowing to dry the product before trowelling,</li><li>• avoid walking, driving and transportation of equipment on freshly coated surfaces, all the imperfections of that coating, resulting from a/m activities, immediately rub using a microfiber applicator,</li><li>• mechanical scrubbing of the treated surface is not necessary after product applying, however - in order to obtain the best properties and appearance of the concrete surface - it is indispensable to spread the agent uniformly and evenly,</li><li>• applied preparation thickens from starting moment of chemical reaction with concrete. Do not touch the surface of the concrete before finishing of that process (a risk of surface imperfections),</li><li>• after coat drying, remove any dried powder residue from the surface using floor scrubbing machine; rinsing with water is not required,</li></ul>	

	<ul style="list-style-type: none"> <li>high-speed polisher may be used for surface gloss increasing (2000 rpm),</li> <li>formulation SILOXIL should be applied additionally as finishing coating, in any case of special requirements concerning surface aesthetic.</li> </ul>
<b>Application conditions</b>	
<b>Ambient temperature</b>	minimum +4°C, maximum +38°C
<b>Insolation</b>	Avoid spraying in direct sunlight. The best results can be achieved when the product is applied in a shade, or in morning or in evening (a small incidence angle of sunlight).
<b>Notes</b>	Check the expiration date marked on the package and read updated documentation, before using of the product. In case of its contact with glass, aluminum or steel immediately wash contaminated places (in order to avoid permanent surface discoloration). Neutralize, rinse abundantly and dry acid stained sections of surface before product applying. Improper product applying or its overdose can cause unacceptable appearance of the concrete surface. Therefore- before starting work – make tests of application on site. Do not use product suspected of freezing. Do not apply the product on frozen surfaces, covered with puddles of water or dirty. Do not apply LITOXIL MAX on surfaces previously coated with MELAXIL and MELAXIL ECO.
<b>Notices and recommendations</b>	
<b>Health and safety conditions</b>	All instructions and warnings placed on labels and product data sheet, should be read and understood before its application. This product is not classified as dangerous for man and environment, therefore when using the product the general rules of occupational health and safety must be complied with and the appropriate personal protective equipment must be used to minimize risks to the health or life of man. If ingested, immediately seek medical attention, and drink large quantities of water or milk and do not induce vomiting. In case of contact with eyes, for about 15 minutes rinse eyes with running water (remove contact lenses previously). The places of contact with skin wash off with soap and water, do not attempt to neutralize with chemical substances. Contact your doctor, if irritation symptoms persist. When somebody experiences difficulties in breathing due to inhalation of vapors emitted during application of preparation, this person should be picked up to fresh air immediately and posses possibility for repeated rinsing of mouth and nasal passage (using water). If problem persist, consult your doctor.
<b>Final remarks</b>	<p>This instruction has been elaborated according to current state of knowledge and experience in scope of formulation application and refers to the product stored under specified conditions. Product documentation provides general information applicable to some conditions. Before using of the product at a large scale, it's recommended executing of application tests - by purchaser - in the real environmental conditions of object. Provider has no effect on types of uses, methods of application and conditions for an implementation existing on-site. So in respect thereof, product supplier responsibility for final work results, can not derive from this instruction.</p> <p>Date of issue: 01/2016.</p> <p>All previously issued Litoxil Max safety data sheets shall expire on the date of issue of this sheet.</p>