

## SiliBond®LSI 726

Inorganic stabiliser and hardener for concrete

**SiliBond®LSI 726 is a reactive silicate binding agent ready to use. Through climatic influences affected concrete or fresh concrete receives new and similar (silica based) binding agents. The natural structure and appearance of the original substances will be preserved.**







**No films, no clogged pores, no crusts or shells on the surfaces!**

SiliBond®LSI 726 is an excellent binder for mineral substrates. The product contains modified silicates and surface-active substances dissolved in water. During application, the low-viscosity, thin-bodied solution is absorbed through the capillaries and pores of the building material and reacts with calcium ions contained in the building material and with CO<sub>2</sub> from the air to form calcium silicate hydrates and silica gels (SiO<sub>2</sub>aq).

Calcium silicate hydrate and silica gel (a non-crystalline form of quartz) are components of most natural rocks. As permanently resistant binders, they provide the building materials treated with them with high strength without the formation of a film or crust - as is the case when impregnated with synthetic resins.

The reaction itself is fast. Most of the SiliBond®LSI 726 is converted in the building material in 1 - 2 days under normal conditions (20 °C / 50 % relative humidity). The final strength is thus achieved very quickly. The setting reaction of SiliBond®LSI 726 **does not produce any water-soluble by-products which could lead to efflorescence on the surface of the building material!** The setting of the purely inorganic product also does not release any solvents or other substances that are toxic or pollute the environment.

**SiliBond®LSI 726**  
**All advantages**  
**at one glance**

	<b>1 component system- easy application</b>
	<b>ideal penetration power based on low viscosity</b>
	<b>Dries absolutely tack-free and without film formation - no contamination</b>
	<b>Pure mineral binder - similar to the building material</b>
	<b>Silicates are acid-resistant - so they also resist acid rain</b>
	<b>And - the treated building material remains permeable to water vapour</b>

SiliBond®LSI 726 does not contain any other additives, also no hydrophobing agents and no ingredients that could attack or damage building materials. The natural vapour diffusion of the building material is not affected by the treatment with SiliBond®LSI 726.

SiliBond®LSI 726 is absolutely colourless. The natural colour of the building material won't be changed or intensified through the treatment with the impregnation material.

SiliBond®LSI 726 is preferably recommended for strengthening absorbent natural and artificial stone, plaster, grout and also for repairing damaged concrete surfaces. SiliBond®LSI 726 is not recommended for brick and similar ceramic building materials, hard natural stones and all building materials with a small capillary sucking activity.

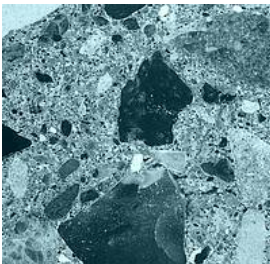
The impregnation with SiliBond®LSI 726 restores the original density and strength of the building material without reducing its natural porosity and thus its ability to diffuse water vapour.

## Processing

The application and processing of the product depends on the damage to the substrate. For a successful repair, it is therefore necessary to first analyse the condition of the substrate to be strengthened (type of stone or binder, salt content, moisture, porosity) to determine the necessary work steps and material requirements. For this purpose, a sufficiently large sample area should always be created in order to be able to assess the success of the work in advance of the repair.

Dirty areas must be cleaned before impregnation. In principle all cleaning methods are suitable, whereby care should be taken that the selected cleaning method does not cause additional damage to the building material.

After cleaning follows strengthening. The surface must be air-dry and absorbent to guarantee the complete saturation of the weathered substrate with SiliBond®LSI 726. The treated surface should be protected from rain for at least 12 hours after the treatment. The surfaces should not be heated up by direct sunlight before impregnation to avoid "burning" of the impregnation in the area of the surface. On warm surfaces, the water evaporates too quickly, so the product does not penetrate deep enough.



**Ideal processing conditions are temperatures between 10 and 20°C, relative humidity < 75%**

SiliBond®LSI 726 is applied to the building material by spraying or flooding. This is the only way to ensure that the product penetrates the building material sufficiently deeply and not just a thin layer on the surface.

For large-area applications and for all highly absorbent surfaces, it is advisable to work in several steps - if necessary "wet in wet" - and to dilute the material with clean water. The degree of dilution depends on the suction behaviour of the building material, we recommend a dilution of 1:1 for the first working step.

## Consumption

A prerequisite for successful consolidation is that the damaged building material layer is saturated with SiliBond®LSI 726 right down to the healthy core. This is the only way to prevent the formation of binder-rich shells on insufficiently strong intermediate layers and - as a consequence - spalling due to thermal stress.

When repairing brittle masonry, which often does not suck evenly, it may be necessary to work in smaller partial areas (if necessary even stone by stone). SiliBond®LSI 726 is applied thickly and always "wet-on-wet" until the material is no longer absorbed by the substrate. If necessary, a second treatment can be carried out after 6-12 hours of waiting time, again aiming at a complete impregnation of the damaged layers of the building material.

**The amount of SiliBond®LSI 726 required for stabilisation naturally depends on the existing substrate and the degree of damage. The consumption can be between 0.5 and 15 kg/m<sup>2</sup>. The specific material requirement for an object must therefore be determined individually and only with a test surface.**

**After treatment  
Painting  
Hydrophobising**

The surfaces stabilised and strengthened with SiliBond®LSI 726 can be reworked with stone replacement compounds, coated with mineral silicate paints or hydrophobised after the silica gel deposition has subsided. If SiliBond®LSI 726 is only applied after the application of the stone replacement compounds or the mineral-silicate paint, a waiting period of at least 4 weeks is necessary.

**Hydrophobising**

The conclusion of any restoration should be a waterproofing, i.e. protection against rain. We recommend HydroBloc®Si-742-K aqua - a water based silan product - which is extremely good compatible with SiliBond®LSI 726.

**Properties**

Composition	Surface active dilution made of alkaline silicate
<b>Solvent</b>	<b>Water</b>
<b>Active ingredients</b>	<b>&gt; 20 %</b>
<b>Density</b>	<b>1,20 gr/ml at 20°C</b>
<b>Viscosity</b>	<b>&lt; 20 mPa.s at 20°C</b>
<b>Odour</b>	<b>Weak, pleasant</b>
<b>Colour</b>	<b>Clear, slightly yellow liquid</b>
<b>Flash point</b>	<b>Not applicable</b>
<b>pH</b>	<b>10,5 - 11</b>

**Environment  
Storage  
Safety at work**

SiliBond®LSI 726 is not toxic, but reacts alkaline. This fact must be taken into account during storage and handling. The product must be protected from frost and stored in such a way that it is not accessible to children and unauthorised third parties. It must not be transferred into aluminium or zinc containers. Contact with acids must be avoided.

Always wear protective clothing, gloves and goggles during processing!

Adjacent components, window panes, painted surfaces and parts made of aluminium must be protected against soiling with SiliBond®LSI 726. When applying by spraying, the risk of wind transport must be taken into account!

These technical information describe the present-day state of knowledge these product. They should only inform about the possibilities of application and could not release the applicator of his commitment to check the possibility to use the product for the required application. Information for processing can be found in processing instructions of our product. Information about safe handling can be found in our current safety data sheet.

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**ARCAN Waterproof**  
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passion to invent 