

PRODUCT DATA SHEET

Sikafloor[®]-20 CureHard LI

Lithium silicate based high gloss hardener

DESCRIPTION

Sikafloor[®]-20 CureHard LI is water-based lithium silicate preparation for sealing and additional curing of fresh and hardened power trowelled or polished concrete surfaces. Compared with similar products based on sodium or potassium silicate, that product in possible overdose is less prone to the formation of stubborn efflorescence.

The product - when applied onto concrete surface - penetrates into its texture, whereas it initiates chemical reaction and subsequent crystallization of reaction products which result in filling the concrete surface pores.

USES

Sikafloor[®]-20 CureHard LI may only be used by experienced professionals.

- Horizontal old or new concrete surfaces, where a hard surface with light to moderate abrasion resistance is required e.g. warehouses,

industrial plants, stores, shopping malls, parking structures, service stations, hangars etc.

- On concrete slabs where no specific curing efficiency or standards are required
- Suitable for interior or exterior applications
- Dust-proofing of prefabricated concrete elements.

FEATURES

Gives the concrete surface silk gloss appearance
Dust reduction and abrasion resistance improvement
Sealing and impregnation of concrete surface
Reduced appearance of efflorescence, compared to crystalline sodium or potassium based hardeners
High gloss of the surface after each regular cleaning
Solvent free, no odour

CERTIFICATES AND TEST REPORTS

Test report:China Standard JC/T 2158

PRODUCT INFORMATION

Composition	1 component water-soluble agent based on lithium silicate
Packaging	20kg/bucket or 200kg/drum
Appearance and colour	Clear liquid
Shelf life	12 months from date of production
Storage conditions	In original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C. Protect from frost.
Density	~1.115kg/L (at +23°C)
Solid content by mass	~17%

TECHNICAL INFORMATION

Abrasion resistance	189%(≥140%) According to JC/T2158 ,actual Abrasion Resistance Ratio	(JC/T2158)
Water absorption	1mm(≤5mm) Note: According to JC/T2158 ,surface water absorption amount after 24h 98%(≥80%) Note: According to JC/T2158 ,Surface water absorption reduction rate after 24h	(JC/T2158) (JC/T2158)

SYSTEM INFORMATION

System structure	1-2 coats
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APPLICATION INFORMATION

Consumption	0.06-0.12kg/m ² /coat(8-16 m ² /kg/coat) This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.													
Ambient air temperature	+2°C min, +40°C max													
Relative air humidity	30% min, 100% max													
Substrate temperature	+5°C min													
Substrate moisture content	Can be applied on green concrete, without any bleed water.													
Waiting time to overcoating	Where 2 coats are required to ensure maximum densification the second coat can be installed after the first one is dry. Allow previous coats to become tack free before applying additional coats. <table border="1"> <tr> <td><u>Air Temp</u></td> <td><u>+5°C</u></td> <td><u>+10°C</u></td> <td><u>+20°C</u></td> <td><u>+25°C</u></td> </tr> <tr> <td><u>Waiting Time</u></td> <td><u>~3.5 hours</u></td> <td><u>~3.0 hours</u></td> <td><u>~2.0 hours</u></td> <td><u>~1.5 hours</u></td> </tr> </table> <p>Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.</p>				<u>Air Temp</u>	<u>+5°C</u>	<u>+10°C</u>	<u>+20°C</u>	<u>+25°C</u>	<u>Waiting Time</u>	<u>~3.5 hours</u>	<u>~3.0 hours</u>	<u>~2.0 hours</u>	<u>~1.5 hours</u>
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Drying time	The surface is touch-dry after 2 hours at +20 °C. Maximum sealing and hardening effect achieved after curing 7 days at +20 °C.													
Applied product ready for use	<u>Substrate Temp</u>	<u>+10°C</u>	<u>+20°C</u>	<u>+30°C</u>										
	Fully serviceable	~4.5 hours	~3.0 hours	~2.0 hours										
	Note: Times are approximate and will be affected by changing ambient and substrate conditions.													

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

In hot weather (above +30°C) store Sikafloor®-20 CureHard LI in a cool place prior to use.
In low temperature (below +10°C) the product may thicken and be difficult to spray.
Do not use sprayers, which have been used to spray silicone or release agents.
Do not mix differing formulations of Sika or other curing membranes.
Ensure spraying equipment is cleaned thoroughly before use and residues of previous membranes are re-

moved.
Sikafloor®-20 CureHard LI must be removed mechanically prior to the application of a coating system.
Sikafloor®-20 CureHard LI will increase abrasion resistance compared to untreated concrete of the same type.
Immediately wash over-spray from glass, aluminium or highly polished surfaces with water to avoid etching of surfaces.
Do not use on substrates treated previously with curing agents, membrane forming sealers or asphalt until these layers have been removed completely.
When applying, do not leave dry spots in order to achieve homogenous performance. Touch up where necessary.
Performance enhancement of the substrates can vary greatly depending on the age, cement content, humidity content, porosity and penetration of the product

into the substrate.
Sikafloor®-20 CureHard LI can not compensate performance of a poor substrates made with low cement content. It is not recommended to apply on substrates which are lightweight, extremely porous and have worn (aggregate exposed) surfaces.
Sikafloor®-20 CureHard LI will not hide serious staining or excessive wear.

ECOLOGY, HEALTH AND SAFETY

DIRECTIVE 2004/42/CE LIMITATION OF EMISSIONS OF VOC

The content of Sikafloor®-20 CureHard LI is not detected for the ready to use product.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Fresh concrete
Surface must be free of bleed water and of sufficient strength to withstand finishing operations.
Hardened/old concrete
Surface must be sound, clean, free from frost, laitance, surface water, oils, grease, coatings, all loosely adhering particles and other surface contaminants. If in doubt, please apply a test area first.

SUBSTRATE PREPARATION

Fresh concrete: The concrete must be prepared by suitable power or manual floating/tamping techniques.
Hardened / old concrete: The substrate must be prepared by suitable cleaning method such as high pressure water cleaning or by ride-on cleaning machines. Allowed to dry.
All dust, dirt, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and / or vacuum.

APPLICATION

Fresh Concrete:
Apply in a continuous film using a high volume low pressure spray unit as soon as the surface is firm enough to walk on and in sufficient quantity to keep the surface damp for at least 30 minutes.
After 30 to 45 minutes, the material begins to gel and becomes slippery. Wet the material lightly with a water spray to reduce slipperiness and rework into the surface for 10 - 20 minutes with a soft bristle broom or floor-scrubbing machine. After about 20 minutes, the material will return to a gel. Rinse the floor and remove any excess material using a squeegee, wet vacuum or mop.

Hardened Concrete:
Apply in a continuous film using a high volume low pressure spray unit.
To ensure maximum penetration, scrub material into the surface with a soft bristle broom or floor-scrubbing machine (min. 30 minutes), until material begins to gel and become slippery. Wet the material lightly with a water spray and rework it into the surface for another 10 - 20 minutes. After this process, rinse the floor and remove any excess material using a squeegee, wet vacuum or mop.
On porous, rough-textured or broom-finished surfaces, a second coat may be required.
For large surfaces and greater placing rates, mechanical equipment such as ride-on cleaning machines can be also used to place, brush in and remove the excess material from the surface.
Thanks to proceeding chemical reaction the rate of water-tightness increases gradually, whereas maximum sealing and hardening effect occurs earliest after 7 days. Gloss of the surface gradually increases during 30 to 90 days depending upon cleaning frequency.

MAINTENANCE INSTRUCTIONS

CLEANING

To maintain the appearance of the floor after application, Sikafloor®-20 CureHard LI must have all spillages removed immediately and must be regularly cleaned using rotary brushes, mechanical scrubbers, scrubber dryers, high pressure washers, wash and vacuum techniques, etc., using suitable detergents and waxes. The frequency and intensity of the wet cleaning will directly influence the how soon and how deep the glossy anti-dust surface develops.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's cur-

rent knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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