BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor® CureHard-20 LI ID

Lithium silicate based high gloss hardener

DESCRIPTION

Sikafloor® CureHard-20 LI ID is water-based lithium silicate preparation for sealing and additional curing of fresh and hardened power trowelled or polished concrete surfaces.
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® CureHard-20 LI ID 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

- Dust reduction and abrasion resistance improvement.
- Sealing and impregnation of concrete surface.
- High gloss of the surface after each regular cleaning.
- Solvent free, no odour.

PRODUCT INFORMATION

Composition	1 component water-soluble agent based on lithium silicate
Packaging	20 kg Jerry can
Appearance and colour	Clear liquid
Shelf life	12 months from date of production
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Protect from frost.
Density	~1.130 kg/L (at +23 °C)

TECHNICAL INFORMATION

Abrasion resistance	28 days	0.2 %	(ASTM D4060)
	According to Taber Abrasion Test (H22/1000/1000)		

APPLICATION INFORMATION

Consumption	0.1 – 0.2 kg/m²/coat (2 coats are recommended and depending on substrate porosity). 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	+10 °C min, +40 °C max
Relative air humidity	30% min, 100% max
Substrate temperature	+10 °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. **Air Temp.** / **+5 °C** / **+10 °C** / **+20 °C** / **+25 °C** Waiting Time / ~3.5 hours / ~3.0 hours / ~2.0 hours / ~1.5 hours Times are approximate and will be affected by changing ambient condition particularly temperature and relative humidity.
Applied product ready for use	**Substrate Prep.** / **+10 °C** / **+20 °C** / **+30 °C** 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.
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.

SYSTEM INFORMATION

System structure	1-2 coats

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- White stain will continue to appear until approximately 21 days (depend on concrete properties and ambient condition), thoroughly wash and remove residue and excess material. If stain still reappear, re-washing might be needed. This is a normal crystallization reaction of the material and will not affecting product performances.
- In hot weather (above +30 °C) store Sikafloor® CureHard-20 LI ID 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 removed.
- Sikafloor® CureHard-20 LI ID must be removed mechanically prior to the application of a coating system.
- Sikafloor® CureHard-20 LI ID 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® CureHard-20 LI ID cannot 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® CureHard-20 LI ID will not hide serious staining or excessive wear.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

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 watertightness increases gradually, whereas maximum sealing and hardening effect occurs earliest after 7 days.

MAINTENANCE INSTRUCTIONS

CLEANING

To maintain the appearance of the floor after application, Sikafloor® CureHard-20 LI ID must have all spillages removed immediately and must be regularly cleaned using rotary brushes, mechanical scrubbers, scrubber dryers, high pressure washers, wash and vacuum tech- niques, 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.

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 current 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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