

PRODUCT DATA SHEET

Sikafloor®-934 LI Densifier

Lithium silicate based liquid surface hardener, dust proofer and densifier (Formerly Congard L)

DESCRIPTION

Sikafloor®-934 LI Densifier is a concentrated and premium nano lithium silicate blend for hardening and densifying of fresh and hardened power trowelled or polished concrete surfaces. It is less prone to the formation of persistent efflorescence in cases of over dosage compared to similar products based on sodium or potassium silicate. It improves surface performance, reduces liquid penetration, reduces dusting and resists the harmful effects of traffic wear and weathering, thereby simplifying maintenance. Once applied to a concrete surface Sikafloor®-934 LI Densifier penetrates the concrete texture, initiating a chemical reaction and subsequent crystallization of reaction products which result in filling of the concrete surface pores.

USES

Sikafloor®-934 LI Densifier 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.
- Suitable for interior or exterior applications
- Dustproofing of prefabricated concrete elements.

The product is used for:

- Warehouses
- Industrial buildings
- Storage areas
- Retail areas
- Car park decks
- Service facilities
- Aircraft hangars

CHARACTERISTICS / ADVANTAGES

- Improves performance, dust reduction and abrasion resistance of new or old concrete
- Sealing and impregnation of concrete surface
- Easy to use, just add water
- Easy to apply with spray
- One step application, no scrubbing, no flushing
- Improves cleanability
- Breathable and UV stable, does not yellow, discolour, peel or flake
- Good penetration
- Solvent free
- Colourless and low odour
- Non-flammable, non-toxic
- Helps reduce damaging alkali-silica reactions and protects from weathering and efflorescence
- Concentrated lithium silicate, economical for transportation
- Reduced appearance of efflorescence, compared to crystalline sodium or potassium based hardeners

PRODUCT INFORMATION

Composition	Lithium silicate
Packaging	20 kg container
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 +10 °C and +30 °C.
Appearance and colour	Liquid / Clear

Density	~1.20 kg/L (+27 °C)	(EN ISO 2811-1)
Solid content by mass	~24 %	
pH-Value	> 8 (Alkaline)	

APPLICATION INFORMATION

Mixing ratio	Sikafloor®-934 LI Densifier : Soft water = 1 : 1–3		
Consumption	0.15–0.25 kg per coat (diluted) Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.		
Ambient air temperature	+10 °C min. / +35 °C max.		
Relative air humidity	80 % max.		
Substrate temperature	+10 °C min. / +35 °C max.		
Substrate moisture content	May be applied on fresh concrete after power trowelling, optically matt dry surface. The product can also be applied to fully cured and set concrete with a matt dry surface, no standing water or puddles.		
Waiting time to overcoating	Where two coats are required to ensure maximum densification the second coat should be installed after the first one is dry. Allow previous application surface to become dry and tack free before applying additional coat.		
	Air temperature		Waiting time
	+30 °C		~1.5 hours
	+20 °C		~2 hours
	Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.		
Drying time	The surface is touch-dry after 2 hours at +20 °C.		
Applied product ready for use	Temperature	Fully serviceable	Full sealing and hardening effect
	+20 °C	~18 hours	~7 days
	Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.		

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.

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

IMPORTANT

Existing membranes

Do not use on substrates treated previously with curing agents, membrane forming sealers or asphalt until these layers have been completely removed.

Apply the product on a small area of each surface to confirm suitability, coverage rate and desired results before beginning the full application. Test with the same equipment, surface preparation and application procedures planned for general application.

IMPORTANT

Poor or stained substrates

Do not use on substrates which are lightweight, extremely porous or have worn (aggregate exposed) sur-

faces. Sikafloor®-934 LI Densifier will increase abrasion resistance compared to untreated concrete of the same type, however Sikafloor®-934 LI Densifier cannot compensate performance of a poor substrate made with low cement content. Sikafloor®-934 LI Densifier will not hide serious staining or excessive wear.

Existing / Cured concrete

Surfaces must be sound, open textured, clean, free from frost, laitance, surface water, oils, grease, coatings, all loosely adhering particles and other surface contaminants. Any residue of curing agents must be completely removed from all surfaces before application of the product. If in doubt apply a test area first.

New concrete

Allow new concrete to cure for a minimum of 72 hours. For the best results with new concrete floors wait for 7–14 days after placement or until after cement has sufficiently hydrated prior to treatment with the Product. After the curing period has elapsed, treat new concrete surfaces as described for Existing / Cured concrete.

Freshly placed, uncured steel-trowelled concrete

Surface must be matt dry and of sufficient strength to withstand finishing operations. Clean concrete of any dirt, residue or debris.

SUBSTRATE PREPARATION

Fresh concrete

The concrete must be prepared by power or manual floating/tamping techniques.

Hardened / Old concrete

The substrate must be prepared by high pressure water cleaning or by ride-on cleaning machines. Allow to dry.

Note: All dust, dirt, loose and friable material must be completely removed from all surfaces before application of the product by brush or vacuum.

MIXING

1. Mix 1–3 parts of potable water to Sikafloor®-934 LI Densifier.
 2. Mix thoroughly using any paint stirrer.
- Note: Dilution rate will depend upon porosity, age and condition of the concrete.

APPLICATION

IMPORTANT

Do not mix with other curing products

Do not mix various formulations of Sika® or other curing

membranes. Do not use sprayers which have previously been used to spray silicones or release agents. Ensure spraying equipment is cleaned thoroughly before use and residues of previous membranes are removed.

IMPORTANT

Maintain a continuous film

When applying, do not leave dry spots in order to achieve homogenous performance. Touch up where necessary.

Existing, cured concrete and new concrete

1. Using a low pressure sprayer, apply a single application sufficient to wet the surface without producing puddles. Avoid over application.
2. Use a clean microfiber pad to spread the product evenly and ensure uniform wetting. Note: Avoid spreading once drying begins.
3. **(Optional)** Alternatively use a cleaning machine with soft pads to apply the product.
4. Scrubbing is not necessary. If surfaces dry immediately apply more product. Surface should remain wet for ~20 minutes.
5. Allow treated surfaces to dry.
6. Remove dried powder residue using stiff broom, power sweeper or floor scrubbing machine.
7. For strongly absorbent floors a second application is required.
8. For immediate, enhanced shine, buff or burnish the dry concrete surface in perpendicular directions by using burnisher equipped with an appropriate polishing pad. This is a dry operation.

Freshly placed, uncured steel-trowelled concrete

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2. Use a clean microfiber pad to spread the product evenly and ensure uniform wetting. Note: Avoid spreading once drying begins.
3. Scrubbing is not necessary. If surfaces dry immediately apply more product. Surface should remain wet for ~20 minutes.
4. Allow treated surfaces to dry.
5. Immediately initiate the specified curing procedure.
6. When curing is complete, use an automatic floor scrubber equipped with cleaning pads or brushes appropriate for removal of accumulated debris and surface residues. Note: Avoid pads or brushes which may damage the finished floor.

Note: Immediately wash over-spray from glass, aluminium or highly polished surfaces with water to avoid etching of surfaces.

Note: 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.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically.

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, the product 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

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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