



Method Statement

Ref. #: DCP00/05-0039-A-2022



Sethard L

[Lithium-silicate liquid surface hardener and dust proofer for concrete]



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Section A : General Comments

General Notes:

The information below is a detailed overview of the application of DCP's **Sethard L** flooring system and should be read in conjunction with the relevant technical data sheet prior to application. All DCP Products should be applied by experienced specialist contractors.

All the points below assume correct preparation of the relevant surface.

High-Temperature Working:

Sethard L can be applied at temperatures between 5°C and 35°C. However, it is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials and equipment should be stored in a cool place and away from direct sunlight.
- ii. Avoid application during the peak temperature of the day.
- iii. Plan for enough materials, tools, and labor to ensure a continuous applicant process.

Low-Temperature Working:

It is suggested that, for temperatures below 10°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials should be stored in warm conditions.
- ii. Cold temperatures will affect the properties of the material.
- iii. Do not apply under rain or snow, and avoid dew point conditions during application.
- iv. Avoid applying the product if the temperature is around 5 and falling.

Tools and Equipment:

It is suggested that the following list of equipment are adopted as a minimum requirement

Personal protection

- : Protective overalls
- : Goggles or a face mask
- : Good quality gloves
- : Safety shoes
- : Safety helmet



Equipment

- : Low pressure sprayer (Fig.1)
- : Spray nozzle (Fig.2)
- : Wide soft bristle broom (Fig.3)
- : Soft rubber squeegee (Fig.4)



Fig.1: Low pressure sprayer



Fig.2: Spray nozzle



Fig.3: Wide soft bristle broom



Fig.4: Soft rubber squeegee

Section B : Application

1.0 Substrate Preparation

1.1 For Existing Concrete

- 1.1.1 The concrete substrate should be clean, sound, smooth, and free from any surface dust or dirt, sealing compound, paints, coatings, or any contamination that would inhibit the penetration of the product such as mortar, paint splashes, curing compounds, oil, and grease.
- 1.1.2 Excess laitance deposits, organic growth, or any other loose materials are best removed mechanically by light grit blasting to remove any weak or deteriorated concrete.

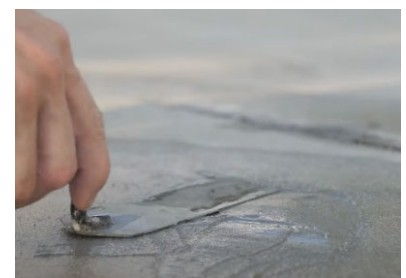
- 1.1.3 Oil and grease contamination must be completely removed using chemical de-greaser then washed with clean water.



- 1.1.4 Areas deeply contaminated by oils or grease, should be treated with hot compressed air or any other suitable method, which assures the surface is free from any oil traces, then washed with clean water.



- 1.1.5 Any surface imperfections, honeycombing, damaged or deteriorated concrete should be repaired with a suitable cementitious repair mortar. Consult the DCP's Technical Department for specific recommendations.



- 1.1.6 It is essential to ensure that the substrate does not suffer from any conditions of rising damp. If any, alternative preparations must be approved by DCP prior to commencement of work, as the final performance of the system relies upon the performance of sound, level, well-prepared substrates.

1.2 For Freshly Finished Concrete

- 1.2.1 No special surface preparation is required.
- 1.2.2 **Sethard L** may be applied on newly laid concrete immediately after final troweling, when the surface is firm enough to walk on and before hairline and temperature cracking begins.

- 1.2.3 All form oil and breaking compound residue must be removed on areas where forms are recently removed in order to avoid inhibiting the penetration of **Sethard L** into the surface.



2.0 Application

2.1 For Existing Concrete

- 2.1.1 **Sethard L** can be applied to cured concrete of any age.
- 2.1.2 Apply one coat of **Sethard L** using a low-pressure sprayer fitted with a 1.9 litre/minute (0.5 gpm) sprayer tip.
- 2.1.3 Use a soft bristle broom to evenly spread **Sethard L** and ensure uniform wetting.
- 2.1.4 Apply one coat of **Sethard L** at the rate of 9 - 10 m²/litre without producing puddles.
- 2.1.5 If surfaces dry immediately, apply more materials as the surfaces should remain wet for 30 – 40 minutes working it into the concrete surface with the soft bristle broom.



After 30-40 minutes

- Redistribute any excess **Sethard L** using a broom or squeegee or microfiber pad (while still in its liquid form) from all low spots and puddles so that all remaining **Sethard L** is entirely absorbed into the concrete or totally removed from the surface.



- Once drying begins, Avoid brooming.
- After drying, remove any excess, powder-like residue with a stiff broom or dry buffer.
- 2.1.6 Allow treated surfaces to dry, then apply curing compound at the specified rate using a suitable product from **Setseal range**.

2.2 For New Concrete Surfaces

2.2.1 **Sethard L** should be applied to cured concrete immediately following the troweling operation, and as soon as the slab is safe to walk on.

2.2.2 Saturate the surface by applying one coat of **Sethard L** at the rate of 12 - 14 m²/litre using a low-pressure sprayer fitted with a 1.9 litre/ minute (0.5 gpm) sprayer tip without producing puddles.

Note: Coverage may vary with the application method, surface conditions, and porosity

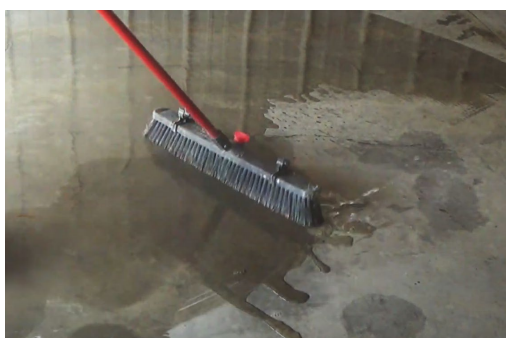
2.2.3 Use a soft bristle broom to evenly spread **Sethard L** and ensure uniform wetting.

2.2.4 Care must be taken to spread the material well.

2.2.5 If surfaces dry immediately, apply more materials as the surfaces should remain wet for 30 – 40 minutes working it into the concrete surface with the soft bristle broom, this step breaks the surface tension and aids penetration.

2.2.6 Keep the surface wet with **Sethard L** for a minimum of 30 minutes, and then wait until it becomes slippery and gel-like underfoot.

2.2.7 No spot or area on the slab should be allowed to become dry during the soaking period. It is best to avoid dry areas either by booming excess **Sethard L** over the more absorbent spots or by applying more **Sethard L** over the dry spots.



2.2.8 Pay particular attention to porous areas and slab edges, as they tend to dry out more quickly.

2.2.9 **Sethard L** is a penetrant, not a membrane. There must be enough material on the surface for **Sethard L** to soak in thoroughly.

2.3 For Vertical Application

2.3.1 Apply **Sethard L** to the surface of the wall using a low-pressure sprayer or roller.

2.3.2 Start at the top and work your way down along the wall or vertical surface.



2.3.3 Apply sufficient material to thoroughly wet the surface without allowing excessive amounts to run down the wall.

2.3.4 If any previously sprayed area has fully absorbed the applied **Sethard L**, re-spray this area.

2.3.5 Ensure that the entire surface is kept damp with **Sethard L** for 30-40 minutes.

2.3.6 Allow the surface to dry.

2.3.7 If the surface is to be coated or painted or the natural appearance is to be preserved, flush the vertical surface well with water 10 minutes after the initial 30 - 40 minute application period



3.0 Cleaning

3.1 All tools should be cleaned immediately after finishing using clean water.

4.0 Remarks

4.1 Check the substrate in advance. Ensure that the substrate is in good condition and clean.

4.2 Always test a small area of each surface to confirm suitability, coverage rate, and desired results before application.

4.3 Colored surfaces must be allowed to cure for 28 days prior to the application of **Sethard L**. It is advised to test a small area to evaluate the effect of **Sethard L** on the color.

4.4 Do not use airless sprayers for application, only low-pressure sprayers.

4.5 Saw cutting may be done before or after **Sethard L** is applied, depending on the immediate need for curing; It is critical that the dust or slurry from cutting be immediately and thoroughly removed from the slab.

4.6 Dusting or erosion problems caused by over troweling, carbonation, or insufficient water-cement ratio cannot be solved using the regular **Sethard L** coverage rates. However, in some cases, additional coverage rates may solve the problem.

4.7 Avoid contact with glass, aluminum, or other glazed or finished surfaces. Where contact occurs, immediately wipe the surface with a damp cloth or flush with water.

4.8 When applying near windows, mask the glass.

4.9 No standing water should remain after flushing the surface.

4.10 **Sethard L** is not to be used for lightweight blocks or extremely porous masonry that contains actual voids, holes, and air pockets.

4.11 **Sethard L** is not a surface retarder. Do not apply during the final troweling operations as discolouration may occur.

4.12 **Sethard L** should not be applied onto frozen substrates or if the ambient temperature is around 5°C and falling.

4.13 In cases of excessive moisture and extreme hydrostatic pressure from beneath the slab, this reaction does not prevent excessive salt migration.



Section C : Cautions

Health and safety

Sethard L should not come into contact with skin and eyes. However, any accidental splashes to the eyes must be rinsed with clean water and seek medical advice.

Fire:

Sethard L is nonflammable.

For further information on refer to the Material Safety Data Sheet.

Section D : Approval and Variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Sethard L**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to DCP for approval, in writing, prior to commencement of any work. DCP will not accept responsibility or liability for variations to the above method statement under any other condition.