

# Dr. Fixit Pidotop Lithium

Polymer modified Lithium Silicate Liquid Floor Hardener.

## Description

**Dr. Fixit Pidotop Lithium** is a polymer modified lithium silicate applied floor hardener. It works by filling concrete natural pores with hard silicate crystals. As concrete floor become dense instead of porous, water and other contaminants are blocked. Concrete surface can be clean easily.

**Dr. Fixit Pidotop Lithium** penetrates up to 1 cm deep on bare new and old concrete mix. Lithium silicate is safer for long term concrete life. And specially designed polymer is used to as curing aid. Depending on the requirement, concrete can be finished for safe texture or highly polished to ease cleaning.

## Area of Application

- Hygienic Floors
- Warehouse Floors
- Factory Floor and Canteen
- Car parks

## Rate of Uses (Depends on concrete condition)

\* Theoretical consumption without allowance for loss.

\*\*Both new and old concrete should have 1 coat applied.

| Rate of uses |                      |          |         |                        |                                    |
|--------------|----------------------|----------|---------|------------------------|------------------------------------|
| Method       | Litre/m <sup>2</sup> |          |         | m <sup>2</sup> / Litre | m <sup>2</sup> /pail<br>(20 Litre) |
|              | Standard             | At Least | At most |                        |                                    |
| Spray        | 0.12                 | 0.10     | 0.14    | 8.3                    | 167                                |
| Brush/Roll   | 0.14                 | 0.10     | 0.18    | 7.1                    | 142                                |

## Method of Application

**Dr.Fixit Pidotop Lithium** is applied any time after concrete is fully set.

### 1. Concrete Preparation :

- Concrete surface must clean, strong, free of all loose dirty materials and dust free, oil stain, wax, liquid coating/paint, concrete curing agent, grease or other stains. Cleaning by using grinding machine or chipping machine to remove all defect surfaces such as peel of surface, weak concrete, cavities, etc.
- Polished Concrete has 3 level 1.Zero Exposure To clear the cement waste and cement water layer remove 0 – 2 mm from the concrete 2.Partial Exposure to get rid of old worn-out cement. remove 2 - 3 mm from the concrete 3. Full Exposure for the old cement floor which has traffic loading and unloading, remove 3 - 5 mm from the concrete

### 2. Application :

- Stir **Dr. Fixit Pidotop Lithium** well before use. This ensures consistent color and hardness.
- Map out the area to estimate how many liters are needed in working grid.
- Brush/Roll **Dr. Fixit Pidotop Lithium** at 0.10 – 0.18 L/m<sup>2</sup> or spray 0.10-0.14 L/m<sup>2</sup> (depend on porous concrete) for new and old concrete should be apply for 1 coat.
- Moping excess product with a roller for prevents the film forming on the surface that may cause white stains.

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## 2.1 Coating

- Leaving product to dry for 2 hours, so the surface can be walked.

## 2.2 Polishing

- Let **Dr.Fixit Pidotop Lithium** completely dry and cure for 12 hours before continuing with polishing. Time depends on humidity and temperature.
- Polishing by buffing machine with fineness sheet.
- Vacuum clean to completely remove dust.

## 3. Curing

- Floor can be walked after 2 hours.
- Floor can be polished after 12 hours.
- For completely crystalline should be leaved **Dr.Fixit Pidotop Lithium** to dry at least 2 days

## Precautions & Limitations

- Lithium Silicate is water base formular that will freeze at 0°C. It is recommended to store in an area between 5-50°C.
- Lithium Silicate is harmful if swallowed. Follow recommended safety guidelines.
- Coverage rates depend upon many conditions including application method, surface porosity, applicator, etc.
- Do not apply on the basin surface because if there is a basin. Will become a white stain. This is caused by the chemical reaction of the product.
- Do not applied over 1 coat, that may cause white stains.
- The use of highly alkaline or acidic cleaners on the treated surface is not recommended and can be damaging.
- Protect metal, glass, wood, brick, and painted surfaces. Wash immediately with clean water if contact occurs.

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## Technical Information

| Properties                                                                                                 | Standard/Test Method      | Result Test                                                |
|------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------|
| 1.Appearance                                                                                               | W-TP-021                  | Milky Liquid                                               |
| 2.Specific Gravity                                                                                         | W-TP-022                  | 1                                                          |
| 3.pH                                                                                                       | W-TP-009                  | 10.5-12                                                    |
| 4.Solid Content                                                                                            | W-TP-010                  | 22.5-23.5                                                  |
| 5.Viscosity                                                                                                | W-TP-001                  | $\leq 20$ (Brookfield RV#1, 100 rpm),cps                   |
| 6.VOC Content                                                                                              | -                         | 0 g/L                                                      |
| 7.Flash Point                                                                                              | -                         | Not Applicable                                             |
| 8.Freeze Point                                                                                             | -                         | 0° C                                                       |
| 9.Shelf Life                                                                                               | -                         | 1 year in sealed container kept under shaded and dry area. |
| 10.Moh's Hardness (polished surface)                                                                       | Moh's Hardness Scale      | 8 – 9 Topaz to Corundum                                    |
| 11.Initial surface absorption<br>-at 10 minutes<br>-at 30 minutes<br>-at 1 hour                            | BS 1881 : Part 208 : 1996 | $<0.05 \text{ ml(m}^2\cdot\text{s)}$                       |
| 12.Testing hardened concrete depth of penetration of water under pressure<br>-10 Bar<br>-15 Bar<br>-20 Bar | (BS EN 12390-8:2009)      | No leakage.<br>No leakage.<br>No leakage.                  |
| 13.Thermal Shock test (3 cycles)<br>Temperature -30°C - +30°C                                              | Thermal Shock test        | No abnormality in appearance.                              |
| 14.Lead                                                                                                    | ASTM D 3335-85a           | $<0.001 \text{ \%w/w}$ of non-volatile matter              |
| 15.Cadmium                                                                                                 | ASTM D 3335-85a           | $<0.001 \text{ \%w/w}$ of non-volatile matter              |
| 16.Hexavalent chromium                                                                                     | IEC6231                   | $<0.0005 \text{ \%w/w}$ of non-volatile matter             |
| 17.Mercury                                                                                                 | ISO3856-7                 | $<0.001 \text{ \%w/w}$ of non-volatile matter              |
| 18.Abrasion resistance (Weight loss)                                                                       | (ASTM D4060)              | 0.27 g                                                     |
| 19.Resistance to Impact (Weight 2LB)                                                                       | (EN ISO 6272)             | Paint film resistance to impact at 20 inch pound           |
| 20.Bond strength by pull-off                                                                               | (EN 1542)                 | 217 psi                                                    |

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## Drying and Curing time

| Substrate temperature                                 | 10 °C | 25 °C | 30 °C  | 40 °C |
|-------------------------------------------------------|-------|-------|--------|-------|
| Surface (touch) dry, hrs.                             | 1.5   | 1     | 45 min | 25min |
| Dry to over coat, minimum, hrs.                       | 2.5   | 2     | 1      | 1     |
| For polishing concrete: Drying time to polishing, hr. | 24    | 18    | 12     | 12    |
| Dried/cured for service, hrs.                         | 72    | 48    | 24     | 12    |

**Remark:** Time depends on concrete condition , humidity and temperature.

## Packaging

- 3.785 Liters.
- 20 Liters.

**Colors:** Clear

## Shelf Life & Storage

1 year in sealed container kept under shaded and dry area.

## Health & Safety Precaution

- Avoid skin contact and eye contact.
- Wear respirator, goggle, protective clothing during application.

## Disclaimer

The product information and the recommendations relating to the application and end-use of Dr.Fixit products, are based on Dr.Fixit's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Dr.Fixit'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. Dr.Fixit reserves the right to change the properties of its products without notice, so the company does not assume liability of any legal from this product information.



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