

# NANO- LITHIUM PLUS



## Production Description

NANO- LITHIUM PLUS is a hybrid **deep penetrating hardener / sealer** that binds loose friable and porous mineral substrates. Penetrates and consolidates, hardens and dust-binds. Increases compressive strength of the concrete by as much as 25% and abrasion resistance about 2.5 times whilst virtually all abrasion dust is eliminated. Will not trigger or contribute to surface ASR (Alkali Silica Reaction). Easy, quick and cost effective to apply. Zero VOC, non flammable, no odour and safe to use.

The treatment is **permanent** and protects the under-lying substrates from detergents, motor oil, petrol, transmission fluid, solvents, de-icing chemicals and other common chemicals. Increasing the resistance to dirt whilst it makes cleaning easy.

The excellent S<sup>d</sup>-Value ensures optimum water vapour permeability allowing excess moisture to evaporate.

## Typical Applications

Excellent in a wide range of commercial, industrial, agricultural and residential applications. On floors as well as on walls. Including airports, balconies, basements, bridges, car parks, car washes, concrete bridges, driveways, harbour, parking decks, tunnels and other high traffic areas such as factory floors, storage/distribution areas, warehouses, workshops, etc.

A quality clear coating which provides superior performance on mineral substrates such as a concrete, plaster etc. Also on former lime paints as it converts the surface into a natural hard ceramic-like coating (silicon dioxide). After the reaction it cannot peel or flake from substrate.

And an impregnator whose prime purpose is to provide dust-proofing, improved resistance to abrasion, impact and freeze-thaw cycles on concrete. Also provides a “key” for further treatment as adhesion is significantly increased.

For use both indoors and out.

## Technical Characteristics

**Type:** Lithium silicate and organosilicon modified with 100% resin polymer

**Gloss Level:** >10° (satin or egg-shell)

**Cure mechanism:** Consolidation and water repellent.

**Spreading rate:** Normally 5-8 m<sup>2</sup>/Litre. On power-floated surface 10-15 m<sup>2</sup>/Litre dependent upon surface porosity

**Solids:** 24% before dilution [industry standard 8%]

**Dilution rates** Very hard surfaces 1 : 2 water

Hard [STANDARD DILUTION] 1 : 1 water

Normal 1 : 0.5 water

Soft Neat

**Ph-value:** 10.5.

**Density :** 1.19 g/cm<sup>3</sup>

**Colour:** Milky white (clear when dry)

### **Performance**

**Temperature Limitations:** Between -40° and +110°C

**Properties:** Adhesion strength: ≥2MPa (against concrete)

Water Absorption: Without sealer 500g/m<sup>2</sup>/h<sup>0.5</sup>

With sealer 100g/m<sup>2</sup>/h<sup>0.5</sup>

Water Vapour Resistance Factor μH<sub>2</sub>O 100

Diffusion: Air layer S<sup>d</sup>H<sub>2</sub>O 0.005m (50μm)

## **Application Instructions**

Substrates should be firm, free from laitance and clean. The surface must not be coated as NANO- LITHIUM PLUS should be used on bare mineral substrates only.

The surface should be vacuum cleaned followed by thoroughly cleaning with NANO- CLEANER. Rinse and allow the surface to dry.

Apply wet-on-wet in a continuous film. Use a microfiber pad to spread NANO- LITHIUM PLUS evenly. Keep wet for 10 minutes without any dry areas, and avoid puddles. Squeegee off excess materials from the surface. The entire densification and hardening process takes around 25 minutes

Should lower water absorption on floors be wanted, use NANO- SILOXANE that has a W-Value of  $50\text{g}/\text{m}^2/\text{h}^{0.5}$

Accepts pedestrian floor traffic after 2-4 hours and light vehicles after 24 hours. One effect of the treatment is that smooth concrete will get a soft gloss or sheen, which can be increased by buffing at high speed with felt pads ( $\geq 1000\text{rpm}$ ).

For detailed instructions, see **Treatment of Concrete**.

Note: Product is **corrosive** (Ph 10.5.) Protect glass and metal surfaces to avoid etching. Pay attention that, during application, treated surfaces becomes temporary slippery.

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|---------------------------------|---|
| <b>Application Temperature:</b> | Above 5°C. Never apply when rain is imminent.   |
| <b>Possible to paint over:</b>  | Yes   |
| <b>Tack-free time:</b>          | 2 Hours (at 20°C and 50% R.H.)  |
| <b>Clean-up:</b>                | Water. Mechanically when dried  |
| <b>Packages:</b>                | Square plastic containers 5 litres, 25litres, 200L barrels, 1000L IBC Containers  |
| <b>Storage:</b>                 | 12 months. To prevent curing of the unused portion of an opened packaging, reseal tightly. Should be stored between 5° and 25°C. Protect from freezing. |

## **Health and Safety**

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|------------------------|--|
| <b>Toxicity:</b>       | Product is corrosive when wet. Irritates eyes and skin. Harmful if swallowed. Keep out of reach of children. |
| <b>Fire Hazard:</b>    | Product is waterborne and presents no fire hazard.   |
| <b>Waste Disposal:</b> | Must comply with all existing local, regional and national regulations                                       |

The information contained here is to the best of our knowledge, but since the circumstances and conditions in which may be used are beyond our control, we do not accept liability for any loss or damage. Our only obligation shall be to replace or pay for any material proved defective.