Technical Data Sheet

CONCRETE SHIELD™ PREMIUM LITHIUM DENSIFIER

Concrete Shield™ Premium Lithium Densifier is a high performance nano-lithium silicate solution with penetration additives used for premium polished concrete floors. The nano-particle technology utilized allows **Concrete Shield™ Premium Lithium Densifier** to penetrate deeper, quickly providing faster curing and allowing for earlier polishing with no formation of white salts, as is seen with other lower cost silicates. **Concrete Shield™ Premium Lithium Densifier** is suitable for interior and exterior use on new or old concrete surfaces where a hard surface with light to moderate abrasion resistance is required.

Features and Benefits

- Good abrasion resistance
- Good penetration
- Suitable for interior and exterior
- Excellent cleanability
- Colourless and odourless
- Water-based
- For use when grinding and polishing concrete floors to provide a superior sheen

Typical Applications

- Warehouses
- Industrial sites
- Retail stores
- Shopping malls
- Car parks
- Service stations
- Aircraft hangers

Properties

- Appearance: colourless, odourless liquid
- Abrasion resistance: >30% (Taber abrader wheel H22/1000g/500 cycles)
- Moisture loss: reduced by a minimum of 85% during initial 24 hrs
- Application conditions: 10-30°C, up to 80% relative humidity

Pack Size

15L

Shelf Life

24 months @ 25°C unopened

Safety

- Refer to Safety Data Sheet prior to use
- Good industrial hygiene practices should be observed at all times
- Appropriate PPE should be worn including impervious gloves & eye wear
- Avoid contact with foodstuff and utensils

Storage

Store in cool, dry conditions, out of direct sunlight and in a well-ventilated area. Do not store below 5°C or over 40°C

Surface Preparation

All substrates must be sound, dry, and free from oil, grease, curing compounds, waxes, coatings, and loose material.

Application

Polished Surface Hardener

Apply in one undiluted uniform coat at an application rate of between 5-8 m^2/L (depending on the porosity of the substrate). To achieve maximum penetration, scrub material into the surface with a stiff bristle broom or an industrial floor-scrubbing machine for a minimum of 30 minutes until product begins to gel or becomes slippery. Wet material lightly with water spray and rework it into the surface for an additional 10 to 20 minutes. Following this, rinse floor and remove any excess material with a squeegee and wet vacuum. Do not allow the material to pond. On porous rough-textured or broom finished surfaces, a second application may be required, and should be applied 2-4 hours following the first coat. Floors can be returned to service 4-6 hours following removal of excess material. The surface can be buffed to produce a low sheen finish if required.

Densifier in Grind / Polish System
Apply using a very soft broom following 100 grit metal bond diamond pads prior to shifting to resin pads. Apply until surface is saturated and keep wet / moist for 20-30 minutes but do not allow material to pond. Allow material to cure prior to beginning the resin polishing stages (typically 8-12 hours). Remove excess material with worn or low grit 50 to 100 grit dry polishing resin bond diamond pads or 100 grit wet/dry copper bond diamond pad. Additionally, it is recommended to apply a thin lip-coat of densifier in front of the grinder during the initial two resin steps to aid in pore filling and keeping tools sharp.

Sealer
Apply by spray method evenly at the prescribed rate. For best results, floors should be treated 7-14 days after placement. Concrete less than 3 days old may contain excess moisture that will inhibit full penetration of **Concrete Shield™ Premium Lithium Densifier**.

Clean-Up

Equipment can be cleaned with warm soapy water immediately after use. Hardened materials must be removed mechanically.

Limitations

Not suitable for use on natural stone.

Do not apply over areas previously treated with concrete curing compounds or membrane forming sealers unless these have been completely removed.

Concrete Shield™ Premium Lithium Densifier cannot be expected to make bad disintegrating concrete good. This product will not effectively work on lightweight, extremely porous, or worn concrete.

For further information, including Safety Data Sheets and Technical Bulletins, refer to the Fortis website www.fortisadhesives.com.au.

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