



Final Treatment for Concrete Floor

Reisfórmula® - Chemical Hardener

Reisfórmula® is a surface chemical densifying hardener based on sodium and lithium silicate with catalytic agents for concrete, mortar, new or old floors that prevents abrasion wear (anti-dust).

The combination of sodium and lithium silicate is the differential that makes a high performance product that guarantees longevity to the treated floors.

Reisfórmula® was developed to increase the hardness of concrete floors in situations of heavy traffic creating an increase of endurance abrasion up to 40% in comparison with untreated concrete. After the application, the result is an extremely hard surface without dust, which is very easy to clean.

Reisfórmula® when is applied on a cementitious based floor, causes a chemical reaction with alkali and free lime, attaching strongly the loosen particles and filling gaps (pores), by crystallization, forming an unique and solid mass.

Reisfórmula® can be applied immediately after finishing the floor, not altering the texture of the floor and on polished floors it will develop a natural shine similar to granite in a period of 4 to 9 months, as long as you have a cleaning routine using automatic washers.

Reisfórmula® glazes and penetrates up to 1/4 inch (6 mm) depending on concrete porosity.

BENEFITS - IN ONE PRODUCT!

- **CURE:** does not allow rapid evaporation of water from the concrete, if applied immediately after finishing.

NOTE: A much better performance was observed when compared to concrete without being cured, there was a loss of 83% of moisture in the untreated samples.

- **HARDEN:** increases strength against abrasion up to 40% compared to untreated concrete. After application, the concrete will continue to harden gradually. Abrasion test: Taber CS-17 1000 g loading for 1000 cycles.

- **SEAL:** Seals concrete and other materials, so they become a solid mass, decreasing the natural porosity, protecting against humidity, and providing easy cleaning.

- **BRIGHTENING:** when applied to high standard floors, it can be polished with Propane, High Speed equipment or a lapping machine.

- **CRYSTALLIZES:** forms insoluble crystals in the capillary, keeping the floor very resistant.

- **ADHERE:** the floor gets prepare to receive floor adhesives and coatings, also providing higher durability for these materials.

- **ELIMINATES DUST FROM CONCRETE:** its high quality and combination of nanotechnology with concrete salts and alkalis, fills the pores with crystals, making it an integral part of the structure.

APPLICATION SEGMENT

- All types of cement-based flooring;
- Industrial concrete floors;
- Concrete road pavements;

- Large circulation warehouse;
- Polished floors;
- Floors with small aggregates
- Hangars;
- Parking lots;
- Multi-sport courts, And so on.

SURFACE PREPARATION

Freshly Finished Concrete Floors (NEW): do not require preparation if applied promptly after completion of the finishing operation.

Existing (OLD) Concrete Floors: must be washed with clean water to remove dust. If the floor is contaminated with grease or fuel, wash it with water and degreaser with neutral Ph as many times as necessary to apply Reisfórmula®.

Floors with chemical compounds as curing agents, resins or coating, must be removed mechanically, before the application.

APPLICATION ON SMOOTH FLOORS

Saturate the floor surface with Reisfórmula® spreading over the least 40 minutes with fine bristle brooms. When the surface is slippery, apply water and spread for another 40 minutes, to help with penetration.

When **Reisfórmula®** starts to dry and becomes slippery again, rinse the surface with clean water, remove the excess.

APPLICATION ROUGH FLOOR

Saturate the surface of the floor with **Reisfórmula®** spread it by at least 40 minutes with fine-bristled brooms without removing the excess. Note: If you want to apply **Reisfórmula®** removing excess, wash the surface with clean water.

CAUTION: Avoid Reisfórmula® contact with glasses.

CLEANING: All equipment must be cleaned with water immediately after use.

PHYSICAL FEATURES

| CHARACTERISTICS | RESULTS |
|---|---|
| Appearance / Odor | Colorless and odorless liquid |
| Flame point | Non – existent |
| Flamability Limits | Non – existent |
| Gas emission | Non – existent |
| Abrasion resistance | 30% to 40% Taber CS-17 |
| Accession (ASTM D3359) | 17% (Epoxi / PU) |
| Schmidt Hammer Impact Test (ASTM C 805) | 31% increase compared to untreated concrete |
| Compression Test (ASTM C 42) (NBR NM 33/98) | 26% increase compared to untreated concrete |
| Weathering | There is no adverse effect to UV rays |
| Penetration / Vitrification | Up to ¼ inch (6mm) |

Reis e Reis Indústria e Comércio Ltda
 Rua Wilton Reis Costa, 220
 Eldorado Centro Industrial e Empresarial
 São José dos Campos / SP CEP 12238-574
 Phone/Fax: +55 12 3966 9977
 e-mail: vendas@reisereis.com.br
www.reisereis.com.br

Our technical advice concerning the application of the product is made verbally, in writing and through demonstration depending on the interest of the customer.

It should be noted that the application of the product is a precision process and when it is not applied by Reis e Reis, the company disclaims any responsibility; therefore, the responsibility is that of the customer. Regarding the storage and use of the product, any resulting change in its properties will be the complete responsibility of the customer.

The liability of Reis e Reis will be limited to any damage or loss in value of the goods supplied by the company and used by the customer. We guarantee the unquestionable quality of our products in accordance with our terms of sale and supply.



CHARACTERISTICS AND PERFORMANCE

| | |
|----------------------|---|
| Chemical composition | Sodium Silicate, Lithium and Catalytic Agents |
| Physical states | Viscous liquid |
| Containers | 200 and 50 LT Drums |
| Performance | 5 m ² per liter (floor with smooth finish) |
| Drying | 1 to 2 hours |

GUARANTY

A properly prepared and structurally sound concrete surface treated with Reissfórmula® will remain sealed, dustproof and hardened for 20 years.

The written guarantee will be given as long as the product is applied by an accredited company or under the supervision of **Reis e Reis**.

* The guarantee described here does not refer to the structural part of the concrete, but only to the surface protection.

CLEANLINESS AND SAFETY

Users must use safety glasses and rubber gloves. Direct contact with the skin should be avoided (can cause irritation). In case of contact with the skin or eyes, wash immediately with abundant water and consult a doctor and inform the type of product. Keep out of the reach of children and animals and sources of heat.

Remove the product from the package by immersion or with a suction pump.

DO NOT REMOVE THE PRODUCT THROUGH THE MOUTH USING A HOSE.

STORAGE

Reisformula® must be stored in a dry, covered and ventilated place at 25°C (77°F).

VALIDITY

Indeterminate, as long as it is in the original sealed package.

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