

1 General data

Product description / Application

RINOL DensiSod is a water-based densifier based on modified sodium silicates, designed to harden and treat interior and exterior concrete floors.

RINOL DensiSod is particularly recommended for new and soft concrete floors, where it improves surface hardness, compactness and resistance to abrasion. By penetrating into the concrete and reacting with calcium hydroxide, RINOL DensiSod helps close surface pores and contributes to the formation of a denser concrete matrix.

The product improves the performance of concrete surfaces, supports higher gloss levels after regular wet cleaning and significantly reduces dust release from concrete pores, contributing to a cleaner and easier-to-maintain floor surface.

RINOL DensiSod is particularly suitable for strengthening soft and porous concrete surfaces before polishing.

Key Characteristics

- **Deep penetration:** penetrates approx. 3–5 mm into porous substrates and forms durable, insoluble sodium silicate compounds.
- **Increased surface hardness:** improves the hardness and compactness of the concrete surface.
- **Improved abrasion resistance:** helps reduce wear, dusting and surface degradation.
- **Non-film-forming:** does not form a surface coating and maintains the breathability of the concrete.
- **Fast reaction:** reacts with the concrete surface and contributes to surface hardening after application.
- **Low VOC:** low-emission formulation with minimal volatile organic compounds.
- **Easy application:** ready-to-use product requiring no dilution or premixing.
- **Reduced maintenance requirements:** helps improve long-term surface durability and facilitates routine maintenance.

Recommended application areas

RINOL DensiSod is suitable for concrete floors where increased surface hardness, reduced dusting, improved abrasion resistance and easier maintenance are required, especially on new, soft or porous concrete surfaces prior to polishing.

Typical areas of application include:

- **Interior and exterior concrete floors:** Increases the hardness and durability of indoor and outdoor concrete surfaces, making them more resistant to wear and abrasion.
- **Commercial and retail floors:** Delivers increased surface density which contributes to easier maintenance and resistance to heavy foot traffic, essential for high-traffic retail environments.
- **Diamond polished concrete:** Optimizes floors treated with diamond polishing techniques, enhancing their durability and visual appeal by reinforcing the concrete's density.
- **Warehouse floors:** Provides enhanced protection against heavy foot and machinery traffic, significantly improving the floor's resistance to abrasion

Technical data

Liquid content

1	Container size	25 Liter drums 200 Liter drums 1000 Liter IBC container
2	Appearance	Colorless liquid
3	Shelf life / storage	12 months at 5-20°C, Always store in a frost-free place (including during transport) and protect from direct sunlight.

Technical data

Liquid content

1	Processing / material and room temperature	5-45°C (min. 3 degrees above dew point even during installation and curing)
2	Material consumption	Approx. 200 ml /m ²
3	Walkability (20°C)	After 2-5 hours approx.
4	Rel. air humidity	< 80% throughout the installation and curing phase
5	Electrical resistance	Virtually equal to the existing concrete (ASTM F150: 10 ⁶ Ω)

and impact.

- **Manufacturing plants:** Supports heavy-duty usage, offering improved resistance to industrial spills and mechanical wear due to its deep penetration and hardening capabilities.
- **Distribution centers:** Enhances floor integrity under continuous operational stress, helping to prevent surface degradation from frequent loading activities.
- **Transportation terminals:** Ideal for use in airports, railway stations, and bus depots where enhanced surface strength and aesthetics are crucial.
- **Institutional floors:** Suitable for educational and governmental buildings, where increased floor durability contributes to a safer, low-maintenance environment.

2 Application Guidelines

Surface preparation

For new concrete:

The concrete must be properly cured, ideally for at least 28 days, before application. The surface must be clean, dry and free from contaminants such as dust, oil, curing compounds, previous coatings or other surface treatments that may prevent penetration of the densifier. Mechanical or chemical preparation may be required to remove curing compounds or other surface treatments.

For existing or older concrete:

The surface must be thoroughly cleaned to remove dirt, grease, previous



sealers, coatings and any other contaminants that may prevent effective penetration of RINOL DensiSod.

Application (new or old concrete)

Ambient temperature during application:

RINOL DensiSod must be applied at an ambient temperature between 5°C and 45°C. Application should be avoided under extreme conditions such as direct sunlight, high humidity or rain, as these may affect drying time and product effectiveness.

Exterior applications:

Do not apply during rain. The applied product must be completely dry before the surface is exposed to rain. Suitability for exterior use must be assessed according to the condition of the concrete and the local climatic exposure.

Method of application:

RINOL DensiSod is ready to use and must be applied directly from the container without dilution or premixing. Apply using a low-pressure sprayer, brush, mop or squeegee, ensuring even and uniform coverage. Work systematically across the area to avoid untreated sections.

Excess material must be removed after 30–40 minutes to prevent white staining of the surface.

Material distribution:

After application, distribute the product evenly over the concrete surface using a soft-bristle brush or microfibre pad. Uniform distribution is essential to allow even penetration into the concrete pores and to support effective densification.

Dwell time / reaction time:

Allow RINOL DensiSod to remain on the surface for at least 30 minutes, keeping the surface moist during this time. This dwell time allows the densifier to penetrate and react with the concrete.

Prevention of residues:

Excess RINOL DensiSod must not be allowed to puddle or dry on the floor. Dried residues may appear as white marks and must be removed immediately by scrubbing.

Cleaning and Maintenance Guidelines

Floors treated with RINOL DensiSod require regular maintenance in order to preserve their mechanical and aesthetic properties over time. Correct cleaning helps maintain surface density, reduce dirt absorption and preserve the desired gloss level.

- **Routine cleaning:** For everyday cleaning, use a dust mop or a soft bristle broom to remove loose dirt and debris. For more thorough cleaning, use an auto-scrubber or a damp mop with a neutral pH cleaner. This will effectively remove grime and maintain the integrity of the treated surface.
- **Immediate spill response:** To prevent staining, spills should be cleaned up immediately. RINOL DensiSod provides excellent resistance to staining, but prompt removal of harsh chemicals, oils, and other liquids is crucial to prevent potential damage.
- **Deep cleaning:** Periodically, it may be necessary to perform a deeper clean, especially in high-traffic areas. Use a low-foam detergent with a pH between 7 and 8 to avoid damaging the treated surface. Rinse the floor

thoroughly with clean water after deep cleaning to remove any residue.

- **Avoid harsh chemicals:** Do not use acidic or highly alkaline cleaners as they can damage the treated surface and diminish the floor's appearance. Avoid bleach and ammonia-based cleaners. If the floor has been exposed to such chemicals, neutralize the area as soon as possible.
- **Buffing and polishing:** If the floor begins to dull, dry buffing or burnishing with a high-speed buffer can restore the original sheen. Use a polishing pad suitable for the level of gloss desired on the floor.
- **Protective measures:** Place walk-off mats at entrances and exits to reduce the amount of dirt and grit tracked onto the floor. Regularly clean these mats to maintain their effectiveness.

Regular maintenance helps preserve the durability, appearance, gloss level and hygiene of floors treated with RINOL DensiSod.

Protective measures

For information on handling the product, please refer to the valid safety data sheet and the guidelines of the chemical industry on handling coating materials (M004/M023). Suitable protective gloves, protective clothing and eye/face protection (safety goggles) must be worn during processing. Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation. Avoid breathing mist, vapours or spray. Wash hands thoroughly after handling.

Notes

The technical data for the Company's products and systems have been compiled with due care. However, any recommendations or suggestions made with regard to the use of these products are made without guarantee as the conditions under which they are used are beyond the control of the Company. It is the responsibility of the customer to determine whether the products are suitable for the particular application and whether the conditions of use are appropriate for the particular product. No liability can therefore be derived from the product data sheet.

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The technical data sheet does not exempt the user from carrying out his own application tests, if necessary, within the limits of his capabilities. Please refer to the RINOL Technical Guide for information on coating options and more detailed information on the installation of RINOL products.

Professional guidance for combined use of densifiers and sealers with mechanical polish

The combined use of concrete densifiers, sealers and mechanical polishing systems requires specialist assessment. A trained specialist should evaluate the specific condition of the concrete floor, including strength, porosity, previous treatments and level of existing wear.

Based on this assessment, the appropriate polishing sequence and treatment protocol can be defined.

Expert evaluation

A thorough analysis of the concrete condition is required to determine the suitability of combined treatments. Factors such as concrete age, previous treatments, porosity, surface hardness and expected use must be considered.

Customized treatment plan

A tailored treatment plan should define the application of densifiers and sealers together with the mechanical polishing steps. The plan should be based on the required durability, appearance and maintenance requirements of the floor.

Sequential application

The sequence of densifier application, mechanical polishing and sealer application is critical. Typically, the densifier is applied first to harden and densify the concrete, followed by mechanical polishing to achieve the desired smoothness and gloss. Sealers may be used as a final step to improve stain resistance and surface protection.

Monitoring and adjustment

During the treatment process, monitoring and adjustment may be required to adapt to changing surface conditions or to achieve the required result.

Correct planning and execution help ensure a high-quality finish that meets both functional and aesthetic requirements and supports long-term floor performance.

Important note

In addition to ambient temperature, substrate temperature is also important.

Chemical reactions are generally slower at lower temperatures. This extends drying and walkability times. Higher product viscosity may also increase material consumption.

At higher temperatures, chemical reactions are accelerated and drying and walkability times are reduced.

Coverage Considerations

The consumption values specified in this technical data sheet are guide values only and may vary depending on concrete porosity, ambient humidity, temperature and surface texture. Different substrates and surface conditions can significantly affect the quantity of product required.

Before full-scale application, a small test area is recommended to determine the actual consumption and confirm compatibility with the concrete surface.

The result of the test area should be used to estimate the quantity of RINOL DensiSod required for the project and to verify that the desired performance and appearance can be achieved.

Legal information

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