



ProHydrate

Nano Silica

October 2020

AT A GLANCE

- Silica technology
- Environmental friendly
- VOC and APEO free
- Water vapor permeable
- Reduces surface abrasion
- Reduce Micro Spalling
- Improve Concrete Cure
- Indoor and outdoor use
- Hydrate Concrete during troweling
- Densifier



Description

ProHydrate is superior quality densifier and finishing aid which makes flatwork finishing easier, faster, and better. Pro Hydrate can be used as densifier and hardener on existing concrete floor during grinding and polishing. The cross linked chemical reactions produce a denser concrete surface, which reduces wear and dust formation and increase the wear resistance.

Applied during power floating and troweling, ProHydrate lubricates the surface. It increases the formation of cream for a better finish, slows surface drying and premature setting and eliminates the need for the use of watering the troweling process.

ProHydrate slows the moisture-loss significantly and extends workability time under adverse conditions such as wind, high heat, sun, or low humidity.

ProHydrate reacts in the surface layer and creates a barrier which minimizes water evaporation and ultimately eliminates or heavily reduce volume loss cracking and curling. ProHydrate highly reduces or eliminates the formation of efflorescences and minimizes the potential for crazy cracking and other drying-related surface issues.

Once troweled into the surface, ProHydrate provides moisture-retention performance like a liquid membrane-forming curing compound. However, no membrane is formed. ProHydrate becomes a permanent part of the slab, there is nothing to remove, and curing is effectively extended, reducing water vapor transmission through the slab. Improved surface consolidation and densifying reaction result in increased surface compressive strength and durability.

For ultimate finish use it together with Deko Hydrate, the topping created to give maximum benefit from Pro Hydrate.



TECHNICAL PROPERTIES AND CHARACTERISTICS

Basis	Water based, inorganic
Ph	11.5
Maximum admitted air humidity	Maximum of 80% r.H
Density	1.1 g/cm ³
Viscosity	100 mPas
Application temperature	Min. +5 °C, max. +55 °C
Consumption:	50 - 200 gr per M ² in 2 Depending on substrate
Applications:	1 or 2 applications

Features and benefits

Helps for better finish in hot, dry, sunny and windy conditions.

Lubricates to create denser surface during power trowel.

Reduces or eliminates efflorescence.

Harden and dust-proof concrete surfaces.

Extend working time on concrete surfaces to achieve a better finish.

Does not alter the water to cement ratio in the surface.

Helps to receive lower RA and higher DOI number.

Easy to use. Densifies fresh concrete and old concrete.

Reduces water vapor transmission.

Easy application on Dry Shake hardeners.

Reduces risk for curling and crazy cracking.



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Application on fresh concrete as finishing aid

ProHydrate is recommended to be applied at multiple stages during finishing of concrete floors. If three separate applications are worked into the concrete it will provide the highest levels of performance. It will not only increase the overall performance of the concrete floor surface, but also make the finish better and easier to achieve.

Apply the first time with ProHydrate immediately after manual screed or laser screed using a low pressure sprayer. Apply a single, saturating layer of ProHydrate approx. 400 sq ft/ US gal (10m²/liter).

Work ProHydrate into the surface with a bull float to ensure that it is worked deeply into the cement matrix.

Apply the dry shake hardener on the floor and follow with a second application with 400 sq ft/gal (10m²/liter) of ProHydrate.

Additional ProHydrate liquid can be used to hydrate during the troweling process.

Complete surface finishing mechanically by blades to the desired level of finish.

Use plastic pan and blades on light colors.

Apply a 3rd time after finishing the trowel of the floor and cure a the floor as normal.

Special precautions

IMPORTANT*

Do not exceed 200 ft²/gal (5m²/liter) per application. ProHydrate must be worked into the surface of the concrete immediately after application. Full benefit will not be realized if ProHydrate is allowed to dry prior to being worked into surface. Over application will retard the set of the concrete. ProHydrate can give different results based on the job site conditions, concrete mix designs and usage demands. Always test ProHydrate on a sample section to determine appropriate application rate and technique before applying to entire project area.

Concrete mix designs, placement/finishing should be performed in accordance with the guidelines of ACI302 or TR34 4th edition (UK).

Limitations

ProHydrate reduces porosity of the concrete surface and make it more abrasion resistance, but it is not a sealer and it will not prevent oil and other contaminants from penetrating the surface.

ProHydrate reduces moisture vapor emissions and work as a curing compound, but ProHydrate is not a membrane-forming curing compound and is not a replacement for specified curing compounds/method.

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ProHydrate as a concrete hardener/densifier on cured/old concrete

ProHydrate is used as a traditional densifier on old/cured concrete floors.

The floor should have open pores and be grinded to 100 grit resin.

The floor should be clean. It should be free from dirt, grease and free from dust and loose particles.

The floor must be dry after cleaning. Then ProHydrate is applied with low-pressure sprayer. Apply in a single, saturating layer of ProHydrate - approx. 400-800 sqft / US gal (10-20m²/liter). Apply sufficient material to wet the surface without producing puddles.

Use a microfiber pad to spread product evenly and ensure uniform wetting, if needed (avoid spreading once drying begins!). The surface should remain wet for 20 minutes. Adjust rate of application accordingly.

Allow treated surfaces to dry for 30-60 minutes.

Once dry continue with the grinding/polishing till the desired level of gloss is reached.

If a higher stain protection is desired we recommend to apply a to sealer on the floor. Consult with our technical department for the right application.

Tools and cleaning

All equipment, mops or sprayers should be washed clean with water and dried before and after application.

Production, packaging, storage, safety and validity

Available in 20 liter canisters or 200 liter drums or 1000 l IBC. The product can be stored in its original containers for 12 months in dry and temperature controlled areas (not below 0°C). Recommended storage is between 10 - 25°C. Reseal opened containers immediately and use within a very short time.

Pro Hydrate is an alkaline liquid. Please refer to the Material Safety Data Sheet.

LIMITED WARRANTY

Etonsurfaces Inc. warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase.

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