

DATA SHEET

Version: nº1

Edition: 03/09/2024

TECNADIS SOLIDUS HIDRO

Hydrophobic consolidant for the restoration and protection of natural stone and other porous materials.

Product description	TECNADIS SOLIDUS HIDRO is a hydrophobic consolidant, based on ethyl silicate and combined with hydro-repellent nanoparticle technology, designed for the restoration and protection of natural stone and other porous mineral materials. Monocomponent solution that on the one hand consolidates the materials, and on the other hand protects them from the action of water due to its hydrophobic/water-repellent property. Consolidation is achieved thanks to its penetrating power that reaches the healthy core of the material to be treated, where it reacts with the ambient humidity, working as a binding substance.
Composition	It is mainly made up of Silicic Acid Ethyl Ester, as the active compound that generates the consolidation process, and ceramic nanoparticles that provide the hydrophobic property, all in dissolution.
Uses	TECNADIS SOLIDUS HIDRO was designed to be applied on all types of absorbent mineral materials, such as sandstone, granite, tuff, brick, clayey/earthy materials, mortar, plaster, etc. that degrade easily due to atmospheric agents.
Features and advantages	 Monocomponent product, non-toxic, safe and easy to use. Very good penetration into the stone material to be treated. Hydrophobic effect with high pearl effect in a short time. Reduces water absorption and stains on the treated substrate. Delays the appearance of any external agent produced by humidity (algae, moss, mould, etc.). Thanks to the hydrophobic effect, it protects and allows the consolidation process to continue even in adverse weather conditions, rain or accidental wetting of the treated surfaces. Complete drying, no formation of sticky substances. A UV-stable mineral binder is created inside the porosity, which cannot be affected by atmospheric agents. Complete impregnation without film formation and good water vapour permeability. No chromatic changes occur in the treated porous material after complete consolidation reaction. The consolidating effect is achieved when the product reaches the healthy core of the material, where after a reaction with the atmospheric humidity, changes occur in the siliceous part, forming the biding substance that consolidates the treated material.
Product information. Composition and physicochemical properties.	 Colour: translucent liquid. Ethyl silicate content: 75% / Solvent content: 25%. Packaging: 1, 5 and 25 L. Storage: 6 months from the date of manufacture in the original sealed containers at room temperature. Viscosity: 3.98 cP at 25°C Specific wight: 0.979 at 25°C Flash point: <23°C Solvent: Isopropanol



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Substrate preparation

The surface to be treated must be absorbent, clean and dry. It is also important not to expose the surface to be treated to direct sunlight to avoid excessive crystallisation speed.

In the case of dirty surfaces, it is essential to provide a precise cleaning with demineralised water and then a complete drying of the substrate. It is recommended not to use acids, alkaline salts or those containing water that can form efflorescence.

In the case of badly damaged surfaces that tend to crumble, it is suggested to preconsolidate them with TECNADIS SOLIDUS before cleaning.

Due to the heterogeneity of the porous materials, it is recommended to carry out preliminary tests on the material to be treated to verify:

- The achievable degree of consolidation.
- The dosage of the product (see yield section).
- The absence of chromatic changes in the treated porous material.
- The effectiveness of the treatment to be carried out.

Application information

It is recommended that the application temperature be at least 10°C and not more than 25°C. It is recommended not to apply at temperatures below 10°C.

- 1. Shake the container vigorously.
- 2. Apply the product by spraying at low pressure (0.5 bar maximum) or by immersion. The material to be treated must be completely saturated with the product (until its rejection), in order to allow the product to penetrate to the healthy core of the stone.
- 3. Good hydrophobic properties are achieved 12-24 hours after application under normal conditions.
- 4. Consolidation time: For optimum results, it is necessary to wait 4 weeks, at a room temperature of 20°C, and a relative humidity of 40 50%.

One application is usually sufficient, but sometimes it is necessary to repeat the treatment after 2-3 weeks.

Yields and storage

Total yields (for guidance only): It may vary depending on the porosity/absorption of the material, from 2 to 10 m²/l. By immersion this may increase. Always apply the required amount of product, which will depend on the quality and porosity of the material. It is recommended to carry out a preliminary test before application in order to determine the proper yield in each case. Keep containers in a cool, dry place. Protect from heat sources and sunlight.

Handling precautions

Product information necessary for safe use is not included herein. Before handling the product, read the material safety data sheets and package labels for safe use and for information on physical and health hazards. Material safety data sheets are available and are supplied by TECNAN. The application of the product must be carried out in a well-ventilated place. It contains a volatile solvent (isopropanol).

The product reacts with atmospheric humidity; therefore, it is necessary to keep the containers tightly closed after use.

If more than the required amount is used, it can be removed before hardening, by using a paint pad dampened with mineral solvents.



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Limited warranty information

Please read it carefully:

The information and recommendations in this document are given in good faith on the basis of TECNAN's experience and knowledge when stored, handled and applied correctly and under normal conditions within its useful life. However, because the conditions, types of materials to be treated and methods of use of our products are beyond our control, this information must be used correctly, verifying in preliminary tests that the product, the performance to be applied, the aesthetic finish and its purpose are suitable, even if other recommendations or advice have been received. TECNAN reserves the right to modify the properties of the product. TECNAN's only guarantee is that the product will comply with the sales specifications in force at the time of dispatch. Confirmation of payment and/or order implies acceptance of the product properties by the customer. TECNAN only guarantees the replacement of the product in the event of a manufacturing defect, and declines any other type of responsibility for the product, its application, as well as any additional damage it may cause. TECNAN specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. TECNAN declines responsibility for any damage caused accidentally or in case of incorrect use. Users must be familiar with the latest updated version of the Technical Data Sheet and for that TECNAN will provide a copy on request.