

TECNADIS SOLIDUS

Hardener for the restoration of natural stone and other porous materials

Product description	<p>Ethyl silicate-based hardener for natural stone and other porous materials. Single component product. This product consolidates porous materials thanks to its easy penetration until reaching the healthy nucleus of the material to be treated, where it reacts with the ambient humidity, acting as a binding substance.</p>
Composition	<p>Formed mainly by Ethyl Ester of Silicic Acid in dissolution. Specific for stone materials. Fully compatible with the nanoparticles-based hydrophobic products of TECNAN.</p>
Uses	<p>Hardener product designed to be applied on all types of absorbent mineral materials such as sandstone, granite, tuff, brick, clayey/earthen materials, plaster, etc. that degrade easily due to atmospheric agents. For a correct application, the surface to be treated must be absorbent, clean and dry.</p> <p>It is recommended that the application temperature is at a minimum of 10°C and a maximum of 25°C.</p>
Features and advantages	<ul style="list-style-type: none"> ▪ Single component product, non-toxic, safe and easy to use. ▪ Very good penetration into the stone material to be treated. ▪ Complete drying, no formation of sticky substances. ▪ A UV-stable mineral binder is created, 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 consolidation is achieved when the product reaches the healthy nucleus of the material, where after a reaction with the atmospheric humidity, changes occur in the siliceous part, forming the binding substance that consolidates the treated material.
Product information. Composition and physicochemical properties.	<ul style="list-style-type: none"> ▪ Colour: translucent liquid. ▪ Ethyl silicate content: 70% ▪ Solvent content: 30% ▪ Packaging: 1, 5 and 25L ▪ Storage: 6 months from the date of manufacture in the original sealed containers at room temperature. ▪ Viscosity: 3,3 CST at 25°C ▪ Specific weight: 0,970 at 15°C ▪ Flash point: <23°C ▪ Solvent: Isopropanol
Substrate preparation	<p>It is important not to expose the surface to direct sunlight to avoid high 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 salts containing water that may form efflorescence. In the case of very damaged surfaces that tend to crumble, it is suggested to pre-consolidate before cleaning.</p> <p>Due to the heterogeneity of the existing porous materials, it is recommended to carry out preliminary tests on the material to be treated to verify:</p> <ul style="list-style-type: none"> ▪ The degree of consolidation achievable. ▪ The dosage of the product. It may vary depending on the porosity/absorption of the material (yield for guidance: from 2 to 10 m²/l). By immersion this may increase. ▪ The absence of chromatic changes in the treated porous material. ▪ The effectiveness of the treatment to be carried out.

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<p>Application information</p>	<p>It is recommended not to apply at temperatures below 10°C. It is preferable that the product is applied by spraying or low pressure (0,5 bar maximum). It can also be treated by immersion. The material to be treated must be completely saturated with product (until rejection), in order to allow the product to penetrate to the healthy nucleus of the stone.</p> <p>One application is usually sufficient, but sometimes it is necessary to repeat the treatment after 2 or 3 weeks.</p> <p>For optimal results, wait 4 weeks at room temperature of 20°C and a relative humidity of 40-50%.</p> <p>Once consolidation is complete, it is essential to apply a hydrophobic product based on nanoparticles, such as the TECNADIS range of hydrophobic and oleophobic products for vertical and horizontal surfaces (AQUASHIELD ULTIMATE, AQUASHIELD FORTE, TECNADIS PRS PERFORMANCE, etc). It is recommended to wait 4-7 days to carry out the application of TECNAN hydrophobic products.</p> <p>Before this period, the hardener itself, due to its own intrinsic reaction, may present a certain hydrophobic character that may prevent the correct adherence of mortars, glazes, etc. Once this time has elapsed, this hydrophobic character disappears.</p> <p><i>NOTE: If it is considered convenient, TECNADIS SOLIDUS can be diluted up to 70% in solvents such as isopropanol, ethanol or white spirit depending on the need to carry out pre-consolidation works or to favour the penetration of the hardener itself. This dilution must be carried out in a responsible manner by a technician specialised in restoration or rehabilitation. The dilution will proportionally influence yields.</i></p>
<p>Yields and storage</p>	<p>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.</p>
<p>Handling precautions</p>	<p>Product information necessary for safe use is not included in this document. 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 supplied by TECNAN. The application of the product must be carried out in a well-ventilated place. It contains a volatile solvent</p> <p>The product reacts with atmospheric humidity; therefore, it is necessary to keep the containers tightly closed after use.</p> <p>If more than the required amount is used, it can be removed, of course before hardening, by using a paint pad dampened with mineral solvents.</p>
<p>Limited warranty information</p>	<p>Please read it carefully:</p> <p>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</p>

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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.