

AQUASHIELD **ACTIVE**

Nanotechnology-based microorganism-growth inhibitor water repellent for surfaces made of porous materials

Product description	Water repellent and microorganism (bacteria, fungus, etc.) growth inhibitor based on nanoparticles of very high performance. Transparent, non-visible, breathable, high performance protector , mainly designed for the protection of porous and low porosity materials against the action of water in facades and other vertical surfaces.
Applications	<p>The active compound that produces water repellency is ceramic nanoparticles dispersed in an organic media (isopropanol), therefore AQUASHIELD ACTIVE is compatible with any porous constructive substrate.</p> <p>Designed to be applied as a water repellent surface treatment on all types of porous surfaces with special application on natural stone (marble, slate, granite, limestone, sandstone). Also suitable for the protection of concrete and brick.</p> <p>Used as a facade protector in both refurbishment and new construction.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>CONCRETE</p> </div> <div style="text-align: center;">  <p>BRICKS</p> </div> <div style="text-align: center;">  <p>STONE</p> </div> <div style="text-align: center;">  <p>CERAMIC</p> </div> </div>
Features and advantages	<ul style="list-style-type: none"> ▪ It avoids the accumulation and penetration of water on the treated surfaces, and microorganism-growth. ▪ It does not form film, does not cross-link, allowing the complete breathability of the substrate. ▪ Completely transparent, respecting the natural colour of the original substrate. ▪ Good resistance and durability when the surfaces are not exposed to continuous mechanical abrasion. ▪ Total UV resistance. ▪ Totally re-applicable. ▪ The active compounds do not react with the surface, maintaining the substrate unaltered. ▪ Thanks to its high water repellency (large rebound of water on the surface) and its microorganism-growth inhibition, it keeps surfaces free of dust and dirt for longer. The surfaces have to be cleaned and free of fungus, bacteria, etc. before application.
Product information. Composition and physico-chemical properties.	<ul style="list-style-type: none"> ▪ Color: Pink translucent liquid. ▪ Formats: 1L, 5L and 25L (higher volumes on request) ▪ Storage: 12 months from the date of manufacture in the original sealed containers at temperatures between 5°C and 30°C. ▪ Volatile Organic Content (VOC) >80% wt ▪ Density: 0,79 g/ml ▪ Viscosity: 5 cP ▪ Boiling point: 82,5°C ▪ Flash point: 11,85°C ▪ Solvent: Isopropanol

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Surface preparation

Before application, thoroughly clean the surfaces and remove all traces of detergents and cleaners. The Surface must be completely clean.
Avoid the presence of fissures or cracks in the substrate. It is recommended, if possible, prior removal thereof.

How to use

- SHAKE THE CONTAINER BEFORE ITS USE.
- The liquid is directly applied on the surface using, as far as possible, a sprayer with air gun (airless standard low pressure). In case of not having a sprayer, it can be also applied using a roller or brush. It is not necessary that the surface is completely dried, the product can be applied over the surface slightly wet. It is recommended to apply it in two perpendicular coats to ensure a total coverage of the surface and thus, achieving the better effectiveness of the treatment and use of the product properties. You can apply the second coat immediately after the first. The optimum effect will be achieved after a full drying time of 24 hours.

Graphic description:

Application (2 coats):

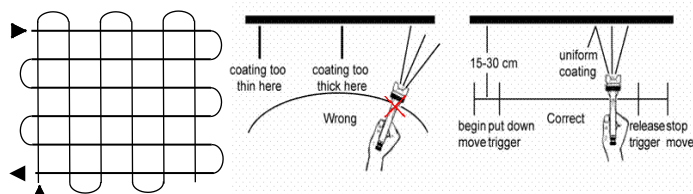


Figure 1

Figure 2

- Application tools: After use, clean them with any type of general solvent compatible with the working tools (alcohol, acetone, universal solvent).

Performance and storage

- Dilution: none
- Performance: Estimation based on the material porosity.

APPROXIMATED TOTAL PERFORMANCE

MATERIALS	m ² /litre
Marble and low porous limestone, terrazzo, polished concrete.	8
Granite, non-polished concrete.	6-7
Sandstones, porous limestones, exposed bricks.	5
mortar, coarse concrete.	4
Extremely porous limestones and sandstones.	3-3,5

- Complete drying time: 24 hours (within a few hours it can already present the protective effect).
- Operating temperature: between 5°C and 30°C.
- Storage temperature: between 5 y 30 °C; protected from direct sunlight, store in original container tightly closed.

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Observations	<ul style="list-style-type: none"> ▪ The high water repellent effect showed from the first time (superhydrophobicity – contact angle of the water drops with the surface > 150º) decrease in those surfaces exposed to a continuous abrasion, especially in wet conditions, although it is still maintained the protection against water. ▪ AQUASHIELD ACTIVE works inhibiting microorganism-growth. So, it is recommended a previous elimination of them using a biocide treatment. ▪ It is recommended to apply at temperatures between 5°C and 30°C (optimum range). ▪ Perform an initial test on those painted surfaces to avoid the appearance of discoloration caused by the solvent of the product (isopropanol). ▪ Possible future applications of water-based paints, reconstructions with different mortars or other products on the treated surfaces may be limited by the hydrophobic effect. ▪ This product is not suitable for medical or pharmaceutical uses.
Handling precautions	<p>The product safety information necessary for its safe use is not included in this document. Before using this product, read the material safety data sheets and the container labels for safe use and for information on physical hazards and health. The material safety data sheets are available and are supplied by TECNAN S.L. The application of the product must be carried out in a well-ventilated place. It contains a volatile solvent (Isopropanol).</p>
Limited warranty information	<p>Please read carefully:</p> <p>The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should be used properly, verifying in preliminary tests that the product is suitable for its intended use. Suggestions of use shall not be taken as inducements to infringe any particular patent. The only guarantee of TECNAN S.L. is that the product will meet the sales specifications in effect at the time of shipment. Your exclusive remedy for breach of this warranty is limited to the refund of the purchase price or replacement of any product that is not warranted. TECNAN S.L. specifically disclaims any express or implied warranty of fitness for a particular purpose or marketing. TECNAN S.L. disclaims responsibility for any damage caused accidentally.</p>