



**ADVANCED  
PROTECTIVE  
NANO COATINGS**

*Think Big, Act Nano*

# TABLE OF CONTENTS

<b>I.</b>	<b>Introduction</b> .....	<b>P. 4-6</b>
I.I.	Who we are.....	P. 4
I. II.	Our goal .....	P. 4
I.III.	What makes us different.....	P. 5
I.IV.	Our technology.....	P. 5
I.V.	Our busines.....	P. 6
<b>II.</b>	<b>Protection of porous building materials</b> .....	<b>P. 7-26</b>
II.I.	<b>Aquashield Range</b> .....	<b>P. 7-13</b>
	•Aquashield Ultimate.....	P. 8
	•Aquashield Forte.....	P. 9
	•Aquashield Active.....	P. 10
	•Aquapore.....	P. 11
	•Aquapore Forte.....	P. 12
	•Aquapore Active.....	P. 13
II.II.	<b>Tecnadis PRS Range</b> .....	<b>P. 14-19</b>
	•Tecnadis PRS Performance.....	P. 15
	•Tecnadis PRS Performance Active.....	P. 16
	•Tecnadis PRS Performance EC.....	P. 17
	•Tecnadis PRS Perfopore.....	P. 18
	•Tecnadis PRS Perfopore Active.....	P. 19
II.III.	<b>Summary table of hydrophobic and oleophobic solutions</b> .....	<b>P. 20</b>
II.IV	<b>Tecnadis Solidus</b> .....	<b>P. 21</b>
II.V.	<b>Tecnadis Grafprotect</b> .....	<b>P. 22</b>
II.VI.	<b>References: Examples of works carried out</b> .....	<b>P. 23-25</b>
II.VII.	<b>Testing, characterisation and certification</b> .....	<b>P. 26</b>
II.VIII.	<b>Cost breakdown</b> .....	<b>P. 27</b>

<b>III.</b>	<b>Glass protection .....</b>	<b>Pág. 28-35</b>
III.I.	Tecnadis GWR.....	Pág. 28-29
III.II.	Vetrosmart Range.....	Pág. 30-31
III.III.	Tecnadis Selfclean Ultra.....	Pág. 32-33
III.IV.	Tecnadis Selfclean PV.....	Pág. 34-35
<b>IV.</b>	<b>Fabrics Protection.....</b>	<b>Pág. 36-39</b>
IV.I.	Coatex Range.....	Pág. 36-37
IV.II.	Protexgo.....	Pág. 38-39
<b>V.</b>	<b>Metals, ceramics, plastics and others surfaces protection.....</b>	<b>Pág. 40-43</b>
VI.	Multicoat Range.....	Pág. 40-43
	•Tecnadis Multicoat Classic.....	Pág. 40-43
	•Tecnadis Multicoat Ultraker.....	Pág. 40-43
	•Tecnadis Multicoat Anticorrosion.....	Pág. 40-43
<b>VI.</b>	<b>Gun protection with bluing effect.....</b>	<b>Pág. 44-46</b>
VI.I.	Tecnan Blue Range.....	Pág. 44-46

# I. Introduction



*TECNAN main building in Los Arcos (Navarra)*

## I.I. Who we are

---

TECNOLOGÍA NAVARRA DE NANOPRODUCTOS, S. L. (TECNAN), was founded in December 2007, solidly supported by the innovative technologies developed at the **Lurederra Technology Centre**, a private research centre applied to industry and with proven national and international experience in the industrial application of nanotechnology, which also participates in the company's capital.

In recent years they have jointly developed totally innovative production lines, obtaining production systems of their own design, unique in the world. This fact has allowed TECNAN to **develop and manufacture exclusive products for large-scale consumption**, which have a successful impact due to the advantages and benefits they offer.

## I.II. Our goal

---

TECNAN was created with the aim of **converting the raw materials produced, nanoparticles, into mass consumption products, both for professionals and end consumers**. Providing added value to the services and products offered by companies in the market, as well as facilitating the day-to-day life of end consumers.



## I.III. What makes us different

1. **OWN DESIGN PRODUCTION TECHNOLOGY:** The production methods developed by TECNAN are singular in the market and are based on own tools and designs. These processes are unique in the world, both for the production of highly sophisticated nanoparticles (with a production capacity of 10 Tn/year) and for the manufacture of consumer products based on nanotechnology and advanced chemistry.
2. **HIGH QUALITY COMPLEX NANO OXIDES:** Available for very specific applications.
3. **INTENSIVE R&D COMPANY:** Constant development of new products and applications, involvement in international research projects and technical support from a R&D department of over 35 technicians.
4. **GREAT VERSATILITY & FLEXIBILITY:** Customised products for specific uses (adjustment of tone, colour, additional properties, etc.).

## I.IV. Our technology

The use of own nanoparticles is what creates the main difference and competitive advantage of TECNAN products.

- The nanoparticle is the active compound that enhances the surface effects: hydrophobicity, stain repellency, easy cleaning, etc.
- The intrinsic properties of these raw materials, their small size and large contact surface area, make the products more effective, thus breaking with the traditional use of chemical compounds.
- Their size is so small that in porous materials, in no case can they obstruct, close or modify the microporosity of the substrates.
- Technological revolution, based on advanced nanotechnology, which creates a non-filmogenic 3D protection, which does not seal, does not react chemically and does not modify the colour of the substrate.

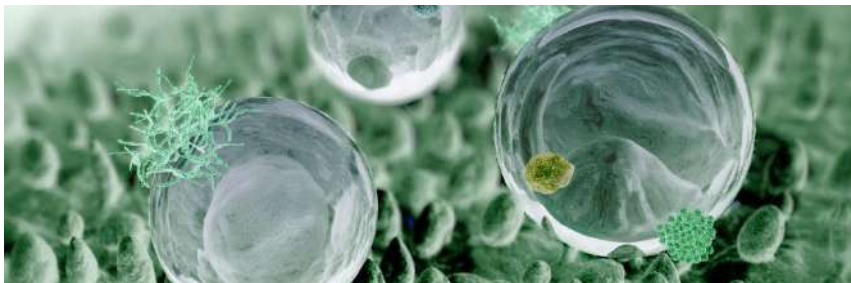
Small nanoparticles  
with large contact  
surface area



Nanoparticles  
enhance surface  
effects



Greater  
effectiveness



## I.V. Our busines

TECNAN produces and commercialises new raw materials, **high performance nanoparticles**, for several industrial applications, as well as **ready-to-use products**, based on **nanotechnology and advanced chemistry**, for different markets, both nationally and internationally.



Rehabilitation, Conservation and Construction



Automotive



Solar Energy



Textile and Footwear



Industrial

**Practicality, innovation and high technology** have enabled TECNAN to manufacture and commercialise unique products that have become market leaders in their respective fields of application.

## II. Protection of porous building materials

### II.I. Aquashield Range

Hydrophobic protection for vertical surfaces

- They reduce water absorption and **slow down the ageing and degradation** of substrates, delaying the appearance of stains and pathologies caused by humidity (algae, moss, mould, etc.).
- They do not form film, they do not seal, the microporosity of the substrate remains unchanged, **allowing the breathability of the substrate**.
- **High** resistance and **durability** against rain.
- No polymerisation reactions, catalysis, etc. **No chemical degradation** over time due to its inorganic composition. No yellowing.
- Totally **resistant to UV radiation**.
- **Colourless**, they do not alter aesthetic, texture or colour of the materials.
- **Re-applicable**, with no need to remove previous product remains. Easy handling and application.
- Thanks to their high water repellency, **they keep surfaces cleaner for longer**. Raindrops wash away dirt.
- The Aquashield range includes "Aquapore", **water-based solutions**.

Aquashield Ultimate



Aquashield Forte



Aquashield Active



Aquapore



Aquapore Forte



Aquapore Active



Available in 1L, 5L and 25L.

## II.I. Aquashield Range

### AQUASHIELD ULTIMATE

Hydrophobic nano protector



25L

5L

1L

AQUASHIELD ULTIMATE is the **first hydrophobic product based on nanoparticles for porous materials**. The product has been developed to be used as a **protector of natural stone facades** (marble, slate, granite, limestone, sandstone). It is also suitable for protecting concrete and masonry, both in **rehabilitation and new construction**.

This is the solution that best fits the description of what a good protective treatment for the Restoration and Conservation of Historical and Artistic Heritage should be, and is therefore an **excellent solution for Conservation and Restoration works**.

- ✓ Hydrophobic
- ✓ Solvent-based
- ✓ Certified durability over 10 years
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 3-8 m<sup>2</sup>/l

FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



SANDSTONE  
3-3.5 m<sup>2</sup>/l



MARBLE  
8 m<sup>2</sup>/l



GRANITE  
6-7 m<sup>2</sup>/l



BRICK  
5 m<sup>2</sup>/l

## How to use it

# 1.

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

# 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

# 3.

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 24 hours.

More info





1L



5L



25L

## II.1. Aquashield Range

### AQUASHIELD FORTE

Reinforced hydrophobic protector

AQUASHIELD FORTE is a **reinforced hydrophobic product based on nanoparticles for porous materials**. It can be used on all types of vertical surfaces

(façades) with special application on bricks, mortars, monolayers, concrete, prefabricated, natural stone and mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

This product is particularly **suitable for rainy areas or surfaces highly exposed to water**. It can also be used for the protection of horizontal surfaces due to its hydrophobic property and its partial oleophobic performance.

- ✓ Reinforced hydrophobic
- ✓ Solvent-based
- ✓ Certified durability over 10 years
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 4-9 m<sup>2</sup>/l

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



PREFABRICATED  
6 m<sup>2</sup>/l



BRICK  
5-6 m<sup>2</sup>/l



STONE  
4-9 m<sup>2</sup>/l



MORTAR  
5-6 m<sup>2</sup>/l

More info



## How to use it

1.

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

3.

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 24 hours.



## II.I. Aquashield Range

### AQUASHIELD ACTIVE

Hydrophobic and antimicrobial protector



AQUASHIELD ACTIVE: **hydrophobic and antimicrobial product based on nanoparticles for porous materials.**

It can be used on all types of vertical surfaces (façades) with special application on bricks, mortars, monolayers, concrete, prefabricated, natural stone and mixed surfaces in which different materials and porosities are found, both in **rehabilitation and new construction.**

It **reduces the proliferation of microorganisms and moss**, delaying their growth.

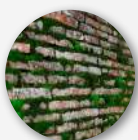
- ✓ Reinforced hydrophobic
- ✓ Antimicrobial
- ✓ Solvent-based
- ✓ High durability\*
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 4-9 m<sup>2</sup>/l

*\*Hydrophobic effect over 10 years.*

FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



PREFABRICATED  
6 m<sup>2</sup>/l



BRICK  
5-6 m<sup>2</sup>/l



STONE  
4-8 m<sup>2</sup>/l



CERAMICS  
9 m<sup>2</sup>/l

## How to use it

# 1.

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

# 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

# 3.

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 24 hours.

More info



## II.I. Aquashield Range

### AQUAPORE

Water-based hydrophobic protector



5L



25L

AQUAPORE is a **hydrophobic product based on nano-particles dispersed in water for porous materials**. It can be used on all types of vertical surfaces (façades) with special application on bricks, natural stone, wood and mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

It is the most eco-friendly protector within the Aquashield Range and has a low level of volatile organic content (<10% wt).

- ✓ Hydrophobic
- ✓ Water-based
- ✓ Medium durability
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 3-8 m<sup>2</sup>/l

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



BRICK  
5 m<sup>2</sup>/l



STONE  
3-7 m<sup>2</sup>/l



WOOD  
6 m<sup>2</sup>/l



CERAMICS  
8 m<sup>2</sup>/l

## How to use it

### 1.

#### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

### 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one must be applied on the substrate still wet (wet-on-wet).

### 3.

#### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 48 hours.



## II.I. Aquashield Range

### AQUAPORE FORTE

Water-based reinforced hydrophobic protector

AQUAPORE FORTE is a **reinforced hydrophobic product based on nanoparticles dispersed in water for porous materials**. It can be used on all types of vertical surfaces (façades) with special application on bricks, mortars, monolayers, concrete, pre-fabricated, natural stone and mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

Due to its water-based composition, AQUAPORE FORTE is also suitable for indoor works.



- ✓ Reinforced hydrophobic
- ✓ Water-based
- ✓ Certified durability over 10 years
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 3-8 m<sup>2</sup>/l

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



BRICK  
5 m<sup>2</sup>/l



GRANITE  
6-7 m<sup>2</sup>/l



STONE  
3-7 m<sup>2</sup>/l



WOOD  
6 m<sup>2</sup>/l

## How to use it

# 1.

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

# 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one must be applied on the substrate still wet (wet-on-wet).

# 3.

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 48 hours.

More info





1L



5L



25L

## II.1. Aquashield Range

### AQUAPORE ACTIVE

Hydrophobic and antimicrobial protector

AQUAPORE ACTIVE is a reinforced hydrophobic and antimicrobial product based on nanoparticles dispersed in water for porous materials. It can be used on all types of vertical surfaces (façades) with special application on bricks, mortars, monolayers, concrete, prefabricated, natural stone and mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

It is eco-friendly and **reduces the proliferation of microorganisms and moss**.

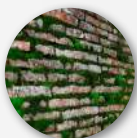
- ✓ Reinforced hydrophobic
- ✓ Antimicrobial
- ✓ Water-based
- ✓ High durability\*
- ✓ Colourless
- ✓ Breathable
- ✓ Yield: 4-9 m<sup>2</sup>/l

*\*Hydrophobic effect over 10 years.*

FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



PREFABRICATED  
6 m<sup>2</sup>/l



BRICK  
5-6 m<sup>2</sup>/l



STONE  
4-8 m<sup>2</sup>/l



CERAMICS  
9 m<sup>2</sup>/l

## How to use it

**1.**

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

**2.**

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one must be applied on the substrate still wet (wet-on-wet).

**3.**

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 48 hours.



# II. Protection of porous building materials

## II.II. Tecnadis PRS Range

Hydrophobic and oleophobic protection for vertical and horizontal surfaces

- They reduce water absorption and **slow down the ageing and degradation** of substrates, delaying the appearance of stains and pathologies caused by humidity (algae, moss, mould, etc.).
- **They make graffiti cleaning easier** and keep **surfaces cleaner for longer** thanks to their high water and stain repellency.
- They do not form film, they do not seal, the microporosity of the substrate remains unchanged, **allowing the breathability** of the substrate.
- High resistance to continuous mechanical action/abrasion (such as pedestrian traffic) and **high durability** against external environmental conditions on façades.
- No polymerisation reactions, catalysis, etc. **No chemical degradation** over time due to its inorganic composition. No yellowing.
- **Totally resistant to UV radiation.**
- **Colourless**, they do not alter aesthetics, texture or colour of the materials (with the exception of "EC", which enhances the tonality of the materials).
- **Re-applicable**, with no need to remove previous product remains. Easy handling and application.
- The Tecnadis PRS range includes "Perfopore", **water-based** solutions.

Tecnadis PRS  
Performance



Tecnadis PRS  
Performance Active



Tecnadis PRS  
Performance EC



Tecnadis PRS  
Perfopore



Tecnadis PRS  
Perfopore Active



Available in 1L, 5L and 25L.



## II.II. Tecnadis PRS Range

### TECNADIS PRS PERFORMANCE

Hydrophobic and oleophobic protector

TECNADIS PRS PERFORMANCE is the first **hydrophobic and oleophobic product based on nanoparticles for porous materials**. It can be used on all types of vertical surfaces (façades) and horizontal surfaces (floors), with special application on concrete, natural stones, bricks, monolayer mortars, prefabricated, clay/terrazzo, as well as mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

It is also used as **sacrificial anti-graffiti** (it makes graffiti cleaning easier) and as **anti-urine**, due to its great repellent effect, which reduces the accumulation of dirt and unpleasant odours, delaying their growth.

- ✓ Reinforced hydrophobic
- ✓ Oleophobic
- ✓ Solvent-based
- ✓ Certified durability over 10 years\*
- ✓ Colourless
- ✓ Breathable
- ✓ High Yield: 4-12,5 m<sup>2</sup>/l

*\*Hydrophobic effect for over 10 years on vertical surfaces or surfaces not subject to continuous abrasion.*

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



TERRAZZO  
12,5 m<sup>2</sup>/l



STONE  
4-10 m<sup>2</sup>/l



CONCRETE  
10 m<sup>2</sup>/l



BRICK  
8 m<sup>2</sup>/l

### How to use it

#### 1.

##### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

#### 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

#### 3.

##### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 24 hours (against water) and 48 hours (against stains).

More info



## II.II. Tecnadis PRS Range

### TECNADIS PRS PERFORMANCE ACTIVE

Hydrophobic, oleophobic and antimicrobial protector



TECNADIS PRS PERFORMANCE ACTIVE, **hydrophobic, oleophobic and antimicrobial product based on nanoparticles for porous materials**. It can be used on all types of vertical surfaces (façades) and horizontal surfaces (floors), with special application on concrete, natural stones, bricks, monolayer mortars, prefabricated, clay/terrazzo, as well as mixed surfaces in which different materials and porosities are found, both in **rehabilitation and new construction**.

This product has the same features as TECNADIS PRS PERFORMANCE, but with an additional antimicrobial component, which helps to delay biological growth.

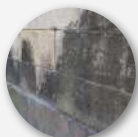
- ✓ Reinforced hydrophobic
- ✓ Oleophobic
- ✓ Solvent-based
- ✓ Durability over 10 years\*
- ✓ Antimicrobial
- ✓ Breathable
- ✓ Colourless
- ✓ High Yield: 4-12.5 m<sup>2</sup>/l

*\*Hydrophobic effect for over 10 years on vertical surfaces or surfaces not subject to continuous abrasion.*

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



TERRAZZO  
12.5 m<sup>2</sup>/l



STONE  
4-10 m<sup>2</sup>/l



PREFABRICATED  
10 m<sup>2</sup>/l



BRICK  
8 m<sup>2</sup>/l

## How to use it

### 1.

#### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

### 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

### 3.

#### DRYING TIME:

Optimum effect will be achieved after a complete drying time of 24 hours (against water) and 48 hours (against stains).





1L

5L

25L

## II.II. Tecnadis PRS Range

### TECNADIS PRS PERFORMANCE EC

Hydrophobic and oleophobic tone enhancer

TECNADIS PRS PERFORMANCE EC (Especial Color), **hydrophobic and oleophobic tone enhancer based on nanoparticles for porous materials**. It can be used on all types of vertical surfaces (façades) and horizontal surfaces (floors), with special application on concrete, natural stones, bricks, monolayer mortars, prefabricated, clay/terrazzo, as well as mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

This product has the same features as TECNADIS PRS PERFORMANCE, but instead of being colourless, it enhances the tone of the substrates without adding shine.

- ✓ Reinforced hydrophobic
- ✓ Oleophobic
- ✓ Solvent-based
- ✓ Durability over 10 years\*
- ✓ Breathable
- ✓ Tone enhancer
- ✓ High Yield: 5-15 m<sup>2</sup>/l

*\*Hydrophobic effect for over 10 years on vertical surfaces or surfaces not subject to continuous abrasion.*

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



TERRAZZO  
12,5-15 m<sup>2</sup>/l



STONE  
5-12,5 m<sup>2</sup>/l



CONCRETE  
5-8 m<sup>2</sup>/l



BRICK  
8 m<sup>2</sup>/l

## How to use it

**1.**

#### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

**2.**

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one can be applied on the substrate still wet.

**3.**

#### DRYING TIME:

Optimum effect will be achieved after a complete drying time of 24 hours (against water) and 48 hours (against stains).



## II.II. Tecnadis PRS Range

### TECNADIS PRS PERFOPORE

Water-based hydrophobic and oleophobic protector



25L



5L



1L

TECNADIS PRS PERFOPORE: hydrophobic and oleophobic product based on nanoparticles dispersed in water for porous materials. It can be used on all types of vertical surfaces (façades) and horizontal surfaces (floors), with special application on concrete, natural stones, bricks, monolayer mortars, prefabricated, clay/terrazzo, as well as mixed surfaces in which different materials and porosities are found, both in rehabilitation and new construction.

This product has the same features as TECNADIS PRS PERFORMANCE, but it is water-based.

- ✓ Reinforced hydrophobic
- ✓ Oleophobic
- ✓ Water-based
- ✓ Certified durability over 10 years\*
- ✓ Breathable
- ✓ Colourless
- ✓ High Yield: 4-12,5 m<sup>2</sup>/l

*\*Hydrophobic effect for over 10 years on vertical surfaces or surfaces not subject to continuous abrasion*

FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



TERRAZZO  
12,5-15 m<sup>2</sup>/l



STONE  
5-12,5 m<sup>2</sup>/l



CONCRETE  
5-8 m<sup>2</sup>/l



BRICK  
8 m<sup>2</sup>/l

## How to use it

# 1.

### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

# 2.

**APLICACIÓN:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one must be applied on the substrate still wet (wet-on-wet).

# 3.

### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 48-72 hours.

More info





## II.II. Tecnadis PRS Range

### TECNADIS PRS PERFOPORE ACTIVE

Water-based hydrophobic, oleophobic and antimicrobial protector

**TECNADIS PRS PERFOPORE ACTIVE: hydrophobic, oleophobic and antimicrobial product based on nanoparticles dispersed in water for porous materials.** It can be used on all types of vertical surfaces (façades) and horizontal surfaces (floors), with special application on concrete, natural stones, bricks, monolayer mortars, prefabricated, clay/terrazzo, as well as mixed surfaces in which different materials and porosities are found, both in **rehabilitation** and **new construction**.

This product has the same features as TECNADIS PRS PERFORMANCE ACTIVE, but it is water-based.

- ✓ Reinforced hydrophobic
- ✓ Oleophobic
- ✓ Water-based
- ✓ Durability over 10 years\*
- ✓ Antimicrobial
- ✓ Breathable
- ✓ Colourless
- ✓ High Yield: 4-12,5 m<sup>2</sup>/l

*\*Hydrophobic effect for over 10 years on vertical surfaces or surfaces not subject to continuous abrasion.*

#### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



**TERRAZZO**  
12,5 m<sup>2</sup>/l



**STONE**  
4-10 m<sup>2</sup>/l



**PREFABRICATED**  
10 m<sup>2</sup>/l



**BRICK**  
8 m<sup>2</sup>/l

## How to use it

### 1.

#### SURFACE

**PREPARATION:** Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

### 2.

**APPLICATION:** Shake the container vigorously. Apply the product with a hand-held sprayer or a standard airless sprayer (low pressure) brush or roller. It is recommended to carry out two applications, and the second one must be applied on the substrate still wet (wet-on-wet).

### 3.

#### DRYING

**TIME:** Optimum effect will be achieved after a complete drying time of 48-72 hours.



## II.III. Summary table of hydrophobic and oleophobic solutions

	Product	Hydrophobic	Oleophobic	Anti-microbial	Solvent-based	Water-based
	AQUASHIELD ULTIMATE	✓			✓	
	AQUASHIELD FORTE	✓			✓	
	AQUASHIELD ACTIVE	✓		✓	✓	
	AQUAPORE	✓				✓
	AQUAPORE FORTE	✓				✓
	AQUAPORE ACTIVE	✓		✓		✓
	TECNADIS PRS PERFORMANCE	✓	✓		✓	
	TECNADIS PRS PERFORMANCE ACTIVE	✓	✓	✓	✓	
	TECNADIS PRS PERFORMANCE EC (Especial color)	✓	✓		✓	
	TECNADIS PRS PERFOPORE	✓	✓			✓
	TECNADIS PRS PERFOPORE ACTIVE	✓	✓	✓		✓

## II. Protection of porous building materials

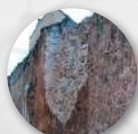
### II.IV. Tecnadis Solidus

Consolidant for the restoration of natural stone and other materials.

TECNADIS SOLIDUS is a mono component **ethyl silicate-based** consolidating agent, developed for natural stone and other porous materials. This product consolidates the materials thanks to its easy penetration until reaching the healthy nucleus of the material to be treated, where it reacts with the ambient humidity and acts as binding substance.

This consolidant is specific for **stone materials** and is **fully compatible with TECNAN's range of nanoparticle based hydrophobic solutions**. It is designed to be applied to all types of absorbent mineral materials, which degrade easily due to atmospheric agents.

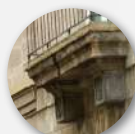
FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



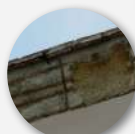
WALLS



WINDOW SILLS



FACADES



CORNICES



SCULPTURES



- **Monocomponent** product, non-toxic, safe and easy to use.
- Very **good penetration** into stony materials.
- **Total drying**, without formation of sticky substances.
- A **UV-stable mineral binder** is formed, which cannot be attacked by atmospheric agents.
- Complete impregnation without forming a film and with **good permeability to water vapour**.
- There are no chromatic alterations in the treated material, nor whitening on the surface, after a complete consolidation reaction.

\* Available in 1L, 5L and 25L. Approximate yield: 2-10m<sup>2</sup>/L.

More info



### How to use it

# 1.

#### **SURFACE PREPARATION:**

Before application, the surface must be completely clean and dry. It is recommended to apply at a temperature between 10°C and 25°C.

# 2.

#### **APPLICATION:**

Shake the container vigorously. 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, facilitating its penetration into the healthy nucleus of the material.

# 3.

#### **CONSOLIDATION**

**TIME:** For optimal results, wait 4 weeks at room temperature of 20°C and a relative humidity of 40-50%.

## II.V. Tecnadis Grafprotect

Permanent protection against graffiti and paint stains.

TECNADIS GRAFPROTECT is a **permanent anti-graffiti** protector, nanotechnology-based, specially designed to protect porous building materials.

It protects the surfaces from paints, graffiti, markers, etc., facilitating their cleaning and removal. It is a bi-component solution that requires prior primer application.

### Complete protection



- ✓ **Permanent anti-graffiti** protection based on nanotechnology.
- ✓ **Hydrophobic and oleophobic** effect, it significantly reduces water absorption and stains.
- ✓ It can modify the aesthetics of treated material, **increasing the tone and adding gloss**.
- ✓ It allows **more than 10 cleaning cycles**.
- ✓ **Bi-component** product composed of base and activator.

### FULL COMPATIBILITY WITH ALL TYPES OF POROUS BUILDING MATERIALS



CONCRETE  
15-17 m<sup>2</sup>/l



TERRAZZO  
15-17 m<sup>2</sup>/l



STONE  
10-15 m<sup>2</sup>/l



BRICK  
12,5-15 m<sup>2</sup>/l

More info



## How to use it

**1.**

### SURFACE PREPARATION:

Before application, the surface must be completely clean and dry. Avoid the presence of fissures or cracks in the substrate.

**2.**

### PRIMER

#### APPLICATION:

TECNADIS PRS Performance, following the indications.

**3.**

### APPLICATION OF TECNADIS GRAFPROTECT:

First of all, mix the base and the activator. Then, apply the product by spraying, brush or roller. Finish by spreading it out using a roller. The optimum effect will be achieved after a complete drying time of 72 hours.

## II.VI. References

Some examples of Civil Works.

---



MAAT - Museum of Art, Architecture and Technology (Lisbon)



City of Arts and Sciences (Valencia)



Marqués de Vargas Winery (La Rioja)



Opera House (Oslo)



Inditex Headquarters (A Coruña)



Telefónica Building (Madrid)



Matacan Airport (Salamanca)



Grand Palladium Palace (Ibiza)



Ramón Bilbao Winery (La Rioja)

## II.VI. References

Some examples of Civil Works.

---



Igeldo lighthouse  
(San Sebastián)



Psychiatric centre  
(Pamplona)



Carlton Hotel  
(Bilbao)



Montecerrao Residential  
Area (Oviedo)



Vincci Zaragoza Zentro Hotel  
(Zaragoza)



University of Cádiz  
(Cádiz)



Can Balaguer  
(Palma de Mallorca)



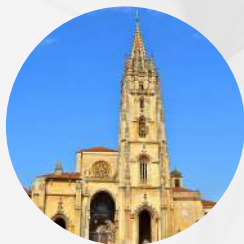
Nuestra Señora del Carmen  
School (Badajoz)



Descendientes de J. Palacios  
Winery (León)

## II.VI. References

Some examples of Restoration of Historical and Artistic Heritage.



Oviedo Cathedral  
(Asturias)



El Burgo de Osma Cathedral  
(Soria)



Casa Batlló  
(Barcelona)



Peru Pavilion  
(Sevilla)



Columbus Monument  
(Huelva)



Monzón Castle  
(Huesca)



Wall of Jerez de los Caballeros  
(Badajoz)



Bank of Spain  
(Zaragoza)



Archaeological site Escaladei  
(Tarragona)

## II.VI. References

Some examples of Restoration of Historical and Artistic Heritage.

---



© Pep Daudé, Basilica de la Sagrada Família (Barcelona)



Magdalena Palace (Santander)



Episcopal Palace of Astorga by Gaudí (León)



Almudena Cathedral (Madrid)



The Giralda (Sevilla)



Rossio Railway Station (Lisbon)



Gate of the Bridge (Córdoba)



Centro Canalejas (Madrid)



Church of Santa María del Temple (Valencia)

## II.VII. Testing, characterisation and certification

All TECNAN products have been subjected to several tests and characterisations, which verify their effectiveness and durability against multiple conditions and against other products on the market. These tests have been carried out both by LUREDERRA Technology Centre and by other external organisations, such as GEOARTEC TECHNICAL SOLUTIONS S.L., a spin-off of the University of Zaragoza, and GEA Geological Consulting.

Furthermore, the products commercialised by TECNAN for the protection of porous materials are manufactured in accordance with the highest quality standards. As proof of this and in compliance with Regulation 05/2011/EU of the European Parliament and of the Council, on the Construction Products Regulation or CPR, TECNAN has the Certificate of Conformity of the Factory Production Control N°0370-CPR-1774, commonly known as CE Marking. This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard EN 1504-2:2004 under the 2+ system are applied and that the factory production control fulfils all the prescribed requirements set above. This certificate was first issued in June 2014 by LGAI Technological Centre, S.A. (APPLUS).



## II.VIII. Cost breakdown

You can consult prices and cost breakdown of all our products in the database of the Official College of Quantity Surveyors, Technical Architects and Building Engineers in Guadalajara: [www.preciocentro.com](http://www.preciocentro.com)

In this database you will find a brief technical description of each product to include in any renovation, maintenance, restoration and/or construction project.



Gabinete Técnico Aparejadores Guadalajara

# III. Glass protection

## III.I. Tecnadis GWR

### Rain repellent for vehicle windscreens

---

Tecnadis GWR is an **innovative rain repellent treatment for vehicle windscreens**: car, lorry, bus, train...

Thanks to its **hydrophobic** effect (water repellency), raindrops barely touch the surface of the glass, and when driving at a speed of more than 60 km/h, they disappear quickly, without the need to use windscreen wipers. The result is **better visibility behind the wheel in heavy rain**.

Additionally, it also protects surfaces from the accumulation of dirt, insects, dust and other incrustations, such as ice, preventing its adhesion up to -5°C.

#### MAIN FEATURES

---

- ✓ **It repels rainwater**, increasing **visibility** and, consequently, **safety** behind the wheel.
  - *It decreases reaction time by more than 1 second thanks to better visibility (equivalent to 27 meters of displacement at a speed of 100 km/h). Therefore, safety increases at high speeds, when more accidents occur.*
  - *It improves day and night visibility in situations of heavy rainfall, approximately 34% in terms of minimum visual angle. It increases visibility even when the vehicle remains stationary.*
- ✓ **Anti-icing**: It protects from ice, avoiding its adhesion to the glass and eliminating the need to scrape (up to -5°C).
- ✓ **High durability**: Up to 12 months / 20,000km\*. The product remains active for approximately 10-12 months, depending on driving conditions, clearly surpassing other products on the market.
- ✓ **It facilitates cleaning**: Insects, dust and other incrustations.
- ✓ **Easy and fast application**: Less than 5 minutes.
- ✓ **Invisible**: It does not form a film, nor does it leave residues on the glass.
- ✓ **Anti-UV**: It is not affected by exposure to UV rays.
- ✓ **It does not release hydrochloric acid**: It can be applied in any environment.
- ✓ **100% compatible with the materials adjacent** to the vehicle windscreen.

*\*A more economical version with less durability is available: TECNADIS GWR ECONOMY.*



*Example of the hydrophobic effect of TECNADIS GWR on a car windscreen.*



*Treated windscreen*

*Untreated windscreen*

## Available formats



**Single use  
wipe**



**50ml**



**500ml**



**1L**



**5L**

## How to use it

**1.**

**CLEANING:** Before applying TECNADIS GWR it is important that the surface to be protected is completely clean, free of dirt and dry.

**2.**

**SHAKING AND SPRAYING:** Shake the container and spray it evenly over the entire surface. The product average yield is 10-15ml per windscreen.

**3.**

**SPREADING AND POLISHING:** Immediately afterwards, spread it evenly with a microfibre cloth or paper until it is completely transparent.

MORE INFO



## III.II. Vetrosmart Range

### Hydrophobic and anti-limescale protection for glass surfaces

The products within the Vetrosmart range are based on a **hydrophobic solution**, which **provide glass with high repellent properties to water and other liquids**, making it **easy-to-clean** dirt and **minimising limescale deposits**. In short, they form an invisible protective film that repels liquids, facilitating their removal and evacuation.

The Vetrosmart range is made up of 3 products with the same features but different durability: Vetrosmart, Vetrosmart Economy and Vetroeasy. These treatments **have been specially designed for any indoor or outdoor glass surface**, such as shower screens, windows, mirrors, or any architectural glass.

#### MAIN FEATURES

- Hydrophobic and anti-limescale surface treatment for glass, **which protects and minimises dirt and limescale deposits**.
- Specially recommended for the treatment of **any indoor and outdoor glass surface**: shower screens, windows, mirrors, etc.
- **High repellency to water and other liquids** thanks to its hydrophobic property.
- **Easy-to-clean**: It keeps **surfaces cleaner for longer**.
- **Easy-to-apply and high performance**: 50-60m<sup>2</sup>/L.
- The coating is **completely transparent**, it does not modify the aesthetic conditions of the glass at all.
- **High chemical and abrasion resistance**. Resistant to common cleaning products.
- **High certified durability**: 3-10 years in new glass, depending on the product\*.



**VETROSMART**  
\*10 YEARS



**VETROSMART ECONOMY**  
\*5 YEARS



**VETROEASY**  
\*3 YEARS

*Available in formats of 125ml, 500ml, 1L, 5L and 25L.*



*Treated glass*

*Untreated glass*

## Certified Durability

Vetrosmart has been certified for 10 years of durability by QUALICONSLT, based on a rigorous accelerated testing procedure consisting of tests for resistance to UV aging, chemical products, thermal shock and abrasion cycles.



## How to use it

1. **CLEANING:** Before applying, the glass must be completely clean and dry, without limescale, dirt or detergent residue.
2. **APPLICATION:** Shake the container vigorously.
  - **Manual:** The liquid can be applied directly to the glass with a hand sprayer or to a cloth. Then spread the product evenly over, covering the entire surface.
  - **Spray Gun:** Apply the product evenly over the surface with any spray gun. It can be applied either in one layer of higher amount of product or in two thinner layers.
3. **POLISHING:** Immediately afterwards, and if necessary, polish the surface with a dry cloth in order to remove any overspray and make it completely transparent.
4. **DRYING:** Ultra-fast drying product. It is possible to handle the treated glass in a short period of time, after 15 minutes. However, it is not recommended to subject the glass to abrasion or intensive cleaning for 24 hours.



*Hydrophobic effect on a treated glass*

### III.III. Tecnadis Selfclean Ultra

#### Hydrophilic protection for glass surfaces

---

Tecnadis Selfclean Ultra is an **innovative hydrophilic and anti-dust surface treatment** (reduces its adhesion), based on nanotechnology, **which creates self-cleaning surfaces** on outdoor and indoor glass.

The coating **facilitates and radically reduces the maintenance and cleaning tasks** of glass surfaces, thus reducing the consumption of water, energy, chemical products and personnel costs. It protects the glass from dirt stains, reducing their accumulation and, in addition, when the water comes into contact with treated surfaces, a thin layer of water is formed, carrying dirt away.

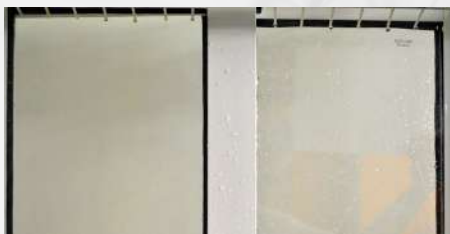
*EFFECT WITH RAIN*



*Treated glass*

*Untreated glass*

*EFFECT AFTER RAIN*



*Treated glass*

*Untreated glass*

*With the action of water, a homogeneous water layer is formed on the glass surface, carrying dirt away and preventing the formation of spots of droplets after drying.*

#### MAIN FEATURES

---

- **Hydrophilic and anti-dust surface treatment**, which creates **self-cleaning** surfaces.
- Specially indicated for the treatment of **any indoor and outdoor glass surface**.
- It keeps **glass surfaces clean for longer**, reducing the cleaning costs by over 50%.
- After application, the coating is **completely transparent**, without modifying the aesthetic condition of the glass and even improving visibility.
- **Total resistance to UV radiation** and atmospheric agents.
- **Easy application**.
- **High performance**: 25-30m<sup>2</sup>/L.
- **Great durability**, around **3 years**.
- **High chemical and abrasion resistance**. Resistant to common cleaning products.

## ANTI-DUST EFFECT



Treated glass

Untreated glass

## Available formats



1L



5L



25L

## How to use it

*Before application, it is important that the glass is completely clean and dry. For cleaning, an abrasive product can be used to polish the surface to be treated. Shake the container vigorously.*

### Manually

**USING A CLOTH:** Spray the product covering as large area as possible, spreading it in circular movements along the glass by using a cloth that leaves no residues (lint, dust, etc.) until the product is fully and evenly spread without leaving traces.

**USING A WINDOW CLEANING SQUEEGEE WITH CLOTH:** Apply Tecnadis Selfclean Ultra on the cloth (microfibre) and spread the product evenly without leaving traces.

### Spray Gun

It is recommended to use a paint gun, type "trans-tech" with compressed air intake. After adjusting the gun, spray the product evenly following longitudinal lines (as shown in the image), in a single layer or in 2 thinner layers.



*Although the product dries quickly and the surface can be handled almost immediately, it is recommended not to subject the treated glass to abrasion or cleaning until 24 hours after application. For more detailed information on the application, consult the document ["How to use it"](#).*

## III.IV. Tecnadis Selfclean PV

Nanotechnology-based treatment to increase the energy efficiency of solar panels

TECNADIS SELF-CLEAN PV is a nanotechnology-based treatment that **increases the energy efficiency of solar panels by more than 8%** and, in addition, keeps them clean and in better condition for longer based on three properties:



### ANTI-REFLECTION

It improves transmittance by **reducing the reflectance of visible radiation in 19%**. This effect results by itself in an average increase of solar panel efficiency of about 3% according to ITE.



### ANTI-DUST

It **reduces the adhesion of particles of sand, soil and other external agents**, therefore decreasing the loss of solar panels efficiency due to dirt.



### SELF-CLEANING

The **coating is hydrophilic**, so as soon as the water comes into contact with the photovoltaic modules, a thin "self-cleaning" layer of water is formed, carrying away present residues.

### OTHER FEATURES

- Specially designed to be applied on photovoltaic panels for self-consumption (small, medium size or industrial) as well as for solar farms.
- **Economic savings.** It reduces the maintenance and cleaning costs of solar panels.
- **Totally transparent** coating, which does not modify the aesthetic of the glass, and even improves the transmittance of the visible light through it.
- **Easy application.**
- Coating **tested under UNE-EN 61215 standard**. Specific regulation for the approval of terrestrial photovoltaic modules suitable for long-term operation in outdoor environments.
- **It maintains functionality after aging tests** based on **ultraviolet test** (at  $96\text{KWh/m}^2$ ), and **temperature cycle test** (52 cycles between  $-40^\circ\text{C}$  and  $85^\circ\text{C}$ , atmosphere of 85% relative humidity).
- **Durability of 10 years** under normal conditions of use.
- **Total UV resistance.**
- It can be directly **re applied** after just a surface cleaning.
- **High performance** ( $25\text{-}30\text{ m}^2/\text{l}$ ).



*Hydrophilic effect on treated panel*

## Available formats



500ml



1L



5L



25L

## How to use it

*Before applying it, make sure that the surface is completely clean and dry to ensure a correct application. Shake container vigorously before its use.*



### Manually

Apply the product over the entire surface with a hand sprayer and spread it evenly over the panel in vertical movements by using a window cleaning squeegee.

### Spray gun

It is recommended to use a spray gun, type "airless", airbrush or electric gun. Apply the product evenly over the surface, at a distance of 15-20cm, following longitudinal lines (as shown in the photo). It is advisable to maintain a constant speed and cover all areas, avoiding overlapping applications as much as possible.



*For further details on the specifications of the method of use, please refer to ["Application method document"](#).*



Manual application



Spray gun application

# IV. Fabrics protection

## IV.I. Coatex Range

Hydrophobic and anti-stain nano protection for fabrics and leathers (Water Based)

The products in the Coatex range are **hydrophobic and anti-stain nano protectors**, **eco-sustainable (water-based)**, for fabrics and leathers, **highly repellent to water and other liquids**. They **significantly reduce water ingress and facilitate the cleaning of stains**, creating an invisible protective film that repels liquids and prevents them from penetrating into fabrics.

The Coatex Range is made up of two products with similar features, but with different functionalities:



**COATEX:** Hydrophobic and anti-stain nano protector for all types of fabrics.



**COATEX CALZADO:** Hydrophobic and anti-stain nano protector for footwear.

*Available in formats of 125ml, 500ml, 1L, 5L and 25L.*



*Example of water repellent effect in shoes treated with COATEX CALZADO.*

Example of water repellent effect in fabrics treated with COATEX:



Water repellent effect



Stain repellent effect



## MAIN BENEFITS

- ✓ **Eco-sustainable**, water-based solution.
- ✓ **Hydrophobic**, repelling the entry of liquids.
- ✓ **Anti-stain**, facilitating cleaning of stains and stickers.
- ✓ **Breathable**, non-filmogenic, compatible with GORE-TEX® membranes.
- ✓ **Colourless**, the finish and texture of the footwear is not affected nor become compacted.
- ✓ **Nanotechnology-based** products free of PFOA and PFOS.
- ✓ **Improved footwear maintenance**, both in the final product and in the manufacturing process.
- ✓ **Easy application**, by spraying.
- ✓ **Fully re-applicable**.

MORE INFO



**1.**

**PREPARATION:** Before applying any product from the Coatex Range, it is recommended that the fabric to be protected is clean.

**2.**

**SHAKE AND SPRAY:** Shake the container and spray evenly over the entire fabric. The average product yield is 6-8 m<sup>2</sup>/L.

**3.**

**LET IT DRY:** It is recommended to let it dry before handling. The optimal drying time is 12 hours, although it can be accelerated using a dryer, a heat source or direct exposure to the sun.

## IV.II. Protexgo

### Hydrophobic, anti-stain, antimicrobial and anti-odour protection (Water Based)

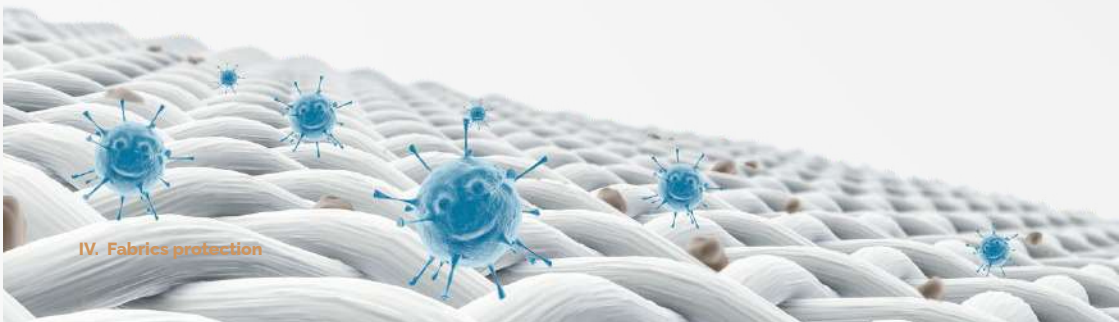
PROTEXGO is a protector for textile fibers that repels water (**hydrophobic**) and stains (**oleophobic/anti-stain**), also inhibiting the growth of microorganisms (**antimicrobial**) and the appearance of bad smells (**anti-odour**).

It has been specifically designed to **preserve and extend the useful life of fabrics**, facilitating their maintenance, cleaning and reducing the need for washing.

PROTEXGO has been notified to the Spanish Ministry of Health as TPg, according to RD 1054/2002.

#### MAIN BENEFITS

- ✓ **It extends the useful life of fabrics** by facilitating their maintenance and protection, as well as lengthening time between cleanings.
- ✓ **Hydrophobic** protection, it avoids the absorption of water by 99% (Cobb test), depending on the fabric.
- ✓ **Anti-stain** protection, reducing the appearance of stains and facilitating cleaning.
- ✓ **Antimicrobial** protection, it inhibits the growth of microorganisms.
- ✓ **Anti-odour** protection, it prevents the appearance of bad smells.
- ✓ **It withstands more than 50 cleanings by hand** (cloth, sponge, microfibre, etc.) or **up to 5 washes in washing machine** (depending on the wash cycle and temperature).
- ✓ **It does not affect** the natural **breathability** of fabrics (UNE-EN 14683).
- ✓ **Dermatologically tested**, obtaining the best result in terms of skin compatibility, under the principles of Good Clinical Practices (Limsa Laboratory).
- ✓ **Water-based** formulation.
- ✓ **Invisible**, it does not change colour or appearance of the fabrics.
- ✓ **Odourless**, after drying.
- ✓ **It recovers fabrics** and improves their appearance.



## Available formats



125ml



500ml



5L



25L

*Example of water repellent effect in climbing shoes protected with PROTEXGO*



## How to use it

**1.**

**PREPARATION:** Before applying PROTEXGO, it is recommended that the fabric to be protected is clean.

**2.**

**SHAKE AND SPRAY:** Shake the container and spray evenly over the entire fabric. The average product yield is 4-6 m<sup>2</sup>/L.

**3.**

**LET IT DRY:** It is recommended to let it dry before handling. The optimal drying time is 12 hours, although it can be accelerated using a dryer, a heat source or direct exposure to the sun.

# V. Metals, ceramics, plastics, and other surfaces protection

## V.I. Multicoat Range

Nano protectors with non-stick, anti-corrosion and high hardness properties.

TECNADIS MULTICOAT is a range of **protective nano coatings**, based on dispersions of ceramic nanoparticles, with non-stick, anti-corrosion and high hardness properties, available in different finishes. They prevent the deterioration of surfaces, either due to exposure to the elements (water, ice, humidity, rust, saltpetre, corrosion, UV radiation...), or that caused by human action (oils, grease, graffiti, scratches, stickers, urine...).

### MAIN FEATURES

- ✓ **High protection** against graffiti, urine and adhesives.
- ✓ **High resistance to corrosion: C4.**
- ✓ It facilitates **cleaning and maintenance**.
- ✓ **High hardness**, 9H (ISO 15184).
- ✓ **Great adhesion**, 0 (ISO 2409) / 5B (ASTM D3359).
- ✓ **High resistance** to scratching, solvents and cleaning products.
- ✓ **Easy application** by spraying.
- ✓ **High resistance to UV radiation**.
- ✓ **Room temperature curing**: 1-2 weeks; or in **oven**: 1 hour at 120-130°C.
- ✓ **High durability**.



### Available formats

All products are available in 400ml aerosol and in bulk, in 1L bottles or 5L jerry cans.

## APPLICATIONS

### LIGHTING:

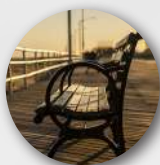
- Columns, poles and lighting arms, LED strips, casings, diffusers, electrical panels, illuminated signs, etc.

### URBAN FURNITURE:

- Benches, litter bins, bike or motorcycle parking lots, playgrounds, public toilets, sculptures, canopies, murals, billboards, parking meters, etc.

### OTHER ELEMENTS:

- Railings, doors, signals, trains, wagons, metallic structures, façades, lifting platforms, etc.



## How to use it

1. **Remove any trace of dirt, oxidation or corrosion.**
2. **Clean and degrease:** The surface to be protected must be completely clean and dry before application.
3. **Application:** Spray evenly over the surface until the desired finish is achieved. It is recommended to apply the product by using a compressed air or electric gun, airless type, or automated systems.
4. **Dry-to-touch:** 4 hours. Good performance after 24 hours.
5. **Full curing:** 1-2 weeks. It is also possible to cure it completely in **oven:** 120-130°C for 1 hour.

## V.I. Multicoat Range

### 1. TECNADIS MULTICOAT CLASSIC

Non-stick and colourless ceramic nano protector.

Tecnadis Multicoat Classic is a **colourless non-stick** ceramic nano protector that provides **gloss and hardness**, as well as facilitating surface cleaning. It has been designed to be applied to metallic, ceramic, plastic or painted surfaces.

### 2. TECNADIS MULTICOAT ULTRAKER

Non-stick ceramic nano protector available in different colours.

Tecnadis Multicoat Ultraker is a **non-stick** ceramic nano protector that provides **hardness**. This product is available in **different colours**, such as black or grey parkerizing (forge finish) and can be applied to metals, ceramics and other surfaces.

### 3. TECNADIS MULTICOAT ANTICORROSION

Metallic grey anti-corrosion ceramic nano protector.

Tecnadis Multicoat Anticorrosion (Primer & Finish) are two **anti-corrosion** ceramic nano protectors for metals exposed to **C4** (highly aggressive) **environments**. This protection provides a **metallic grey** colour and can be applied directly to slightly oxidised surfaces. The difference between them is explained below:

- 3.1 Tecnadis Multicoat Anticorrosion (**Primer**): It is used as an **anticorrosive** primer in a solution made up of several layers of coatings.
- 3.2. Tecnadis Multicoat Anticorrosion (**Finish**): It is used as a last coat, without the need to use a primer. In addition to protecting against **corrosion**, it provides **non-stick** properties.

PRODUCT	COLOUR	NON-STICK	ANTICORROSION	THICK-NESS (µm)	YIELD (m <sup>2</sup> /l)
1. CLASSIC	Transparent	✓	✓	2-10	10-15
2. ULTRAKER	Several finishes	✓	✓	10-20	10-15
3.1. PRIMER	Metallic grey	✗	✓ ✓ C4	20-30	8-10
3.2. FINISH	Metallic grey	✓	C4	20-30	8-10



*Example of two metal parts exposed to corrosion in a saline chamber, the one on the left without protection and the one on the right with Tecnadis Multicoat Anticorrosion*



*Example of metal parts before applying Tecnadis Multicoat Anticorrosion (Primer)*



*Example of application of Tecnadis Multicoat Anticorrosion (Primer) on a slightly oxidised surface*

# VI. Gun protection with bluing effect

## VI.I. Tecnan Blue Range

### Nano ceramic protectors for guns with bluing effect (no heat required)

TECNAN BLUE is a nano ceramic protector for guns with bluing effect (no heat required) that creates a hard and resistant ceramic coating. It has been designed to repair and protect the metal parts of any type of guns.

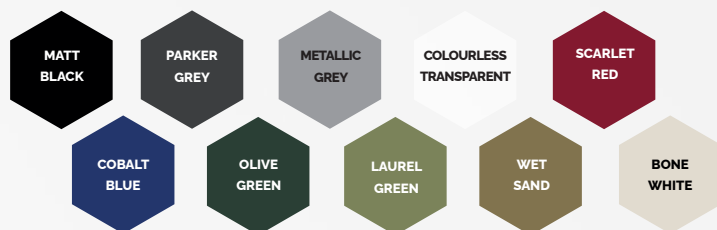
- **Based on a dispersion of high hardness ceramic nanoparticles**, providing maximum hardness and anti-corrosion properties.
- **Room temperature curing**, no heat is required. However, complete curing can be accelerated at temperatures of 140-150°C for 1 hour.
- **Protection from external agents** such as weathering or other corrosive agents.

It can be directly applied over metal parts of guns: barrel, slide, body, cylinder, etc. It is **compatible with steel, aluminium, stainless steel and alloys**.

### MAIN FEATURES

- ✓ Great **adhesion**.
- ✓ **Years of durability** and excellent coverage.
- ✓ **Maximum hardness**.
- ✓ **High resistance** to scratches, oils and solvents.
- ✓ **Anticorrosion**: Excellent protection against corrosion and weathering.
- ✓ Available in **different colours and packaging**.
- ✓ **Easy application** by spraying.
- ✓ Final coating thickness of **10-20 µm (microns)**, approximately.
- ✓ **It is possible to re-apply the product and repair** damaged areas, without having to remove previous coating remains.

### AVAILABLE COLOURS



# Available formats



- **AEROSOL:** 200ml for domestic or amateur use. Approximate yield between 1 and 2 standard size shotgun barrels.
- **BULK:** 250ml, 1L or 5L for professional use. Spray gun/airbrush is required for application. Approximate yield between 10-20m²/L.

# Technical data

PARAMETERS	VALUES
• Solids	20-40 %
• Viscosity	20-40 Cps
• Density of the product	0,85-1 g/l
• Recommended coating thickness	10-20 µm
• Adhesion	0 (ISO 2409) / 5B (ASTM D3359)
• Hardness	9H (ISO 15184)
• Corrosion resistance (Thickness 20µm - Metallic grey)	>2.000 Hours (ISO 9227)
• Abrasion resistance	20.000-30.000 Cycles (ISO 11998)
• Chemical resistance	Excellent
• Coating Stability Max. Temp.	250°C

*\*TECNAN BLUE is not affected by Regulation (EC) 1005/2009 on substances that deplete the ozone layer.*

CHEMICAL RESISTANCE  
THERMAL STABILITY  
IMPACT



HARDNESS  
CORROSION  
UV STABILITY



## How to use it

1. **Disassemble** the firearm.
2. **Remove any trace of dirt, oxidation or corrosion:**
  - For surfaces with minor oxidation or corrosion, use a brass brush, brass steel or steel wool (medium or fine).
  - For surfaces with more severe oxidation or corrosion, more abrasive mechanical means can be used, such as light sandblasting with aluminum oxide (100-120 grit) and a working pressure of 5,5 to 7 bars or suitable polishing brushes.
3. Perfectly **clean and degrease** metal surfaces.
4. **Application:** Apply evenly over the surface, avoiding overspray as far as possible.
  - [Aerosol](#): Spray over the surface at a distance of 25-35cm, keeping the container in a vertical or slightly inclined position.
  - [Spray gun/airbrush](#): Spray evenly over the surface.
5. **Curing:**
  - [At room temperature](#): Let it dry for a minimum of 4 hours. Full curing will be achieved in 2-3 weeks.
  - [Oven](#): At 140-150°C for 1 hour.



*Example of restoration with TECNAN BLUE (Matt Black). The photo above, before the process, and the photo below shows the final result.*





**TECNAN**  
TECNOLOGÍA NAVARRA DE NANOPRODUCTOS S.L.

Área Ind. Perguita, C/A-1, 31210, Los Arcos (Navarra), Spain  
Tel. +34 948 640 318 · [www.tecnan-nanomates](http://www.tecnan-nanomates)