

MADE IN ITALY

Able to inhibit the count and proliferation of microorganisms such as bacteria and moulds. Tested by Microbiology Laboratory in accordance with European standards: **ISO 22196:2011 – UNI 11021:2002** Measurement of antibacterial and anti-mould activity



SETTING NEW STANDARDS



HYPER GRINDER

CONCRETE
GUARD LITHIUM
ANTIBACTERIAL

HIGH-PROTECTION LITHIUM SILICATE ANTIBACTERIAL TRANSPARENT FINISH WITH SILVER ION TECHNOLOGY FOR INDOOR, OUTDOOR AND NEW OR EXISTING INDUSTRIAL FLOORS



99.999% REDUCTION IN BACTERIAL LOAD

CONCRETE GUARD LITHIUM ANTIBACTERIAL

PRODUCT DESCRIPTION

Antibacterial, transparent finishing treatment, designed to form a hard, dustproof, glossy, waterproof and chemically resistant micro film. Inhibit bacterial load in accordance with European standard ISO 22196:2011.

Ready-to-use single-component product in aqueous vehicle based on organic/inorganic binders. The complete line of "**Antibacterial**" consolidating agents and finishes is the result of the need to live surfaces in hygienic safety.

Mainly designed for destinations where there is a high risk of bacterial contamination of civil and industrial surfaces, such as:

hospital and outpatient environments, schools, public places, gyms, communities, canteens, restaurants and food industry departments, P.P.E. factories and the pharmaceutical industry. It is suitable as an anti-mould in accordance with the requirements of the UNI 11021 standard for use in environments with the presence of food.

Commercial areas, warehouses, food industries, are just some of the surfaces that can be treated with Concrete Guard Lithium Antibacterial. Moreover, by combining the mechanical and chemical protective properties of lithium silicate, it creates a permanent bond with the cement support following the reaction with the hydration products of the cement, completely filling pores and capillaries and providing surfaces with high hardness, consolidation, impermeability to liquids with repellency to dust and chemical substances.



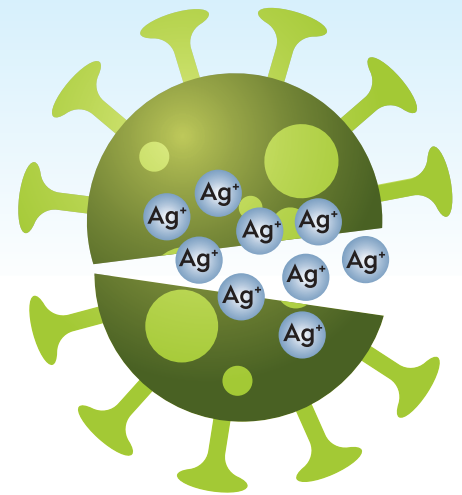
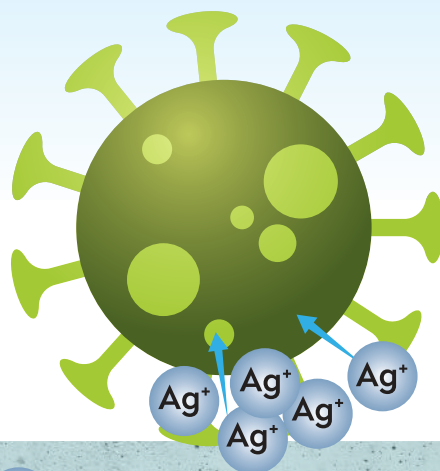
Designed for places with high risk of bacterial contamination



Combining the mechanical and chemical protective properties of **lithium silicate**, with the antibacterial activity provided by the latest generation of **silver ions and biocides**, the treatment performs a **self-defensive action on the surface**. If the microorganism were to come into contact with the treated surface, the Silver ions would be able to penetrate the cell membrane to bind to DNA-RNA, block the survival of the enzymatic cells of the respiration by interrupting multiplication, and causing death. **Microbiological tests have shown that in 24 hours, 99.999% of the bacterial load was eliminated.**

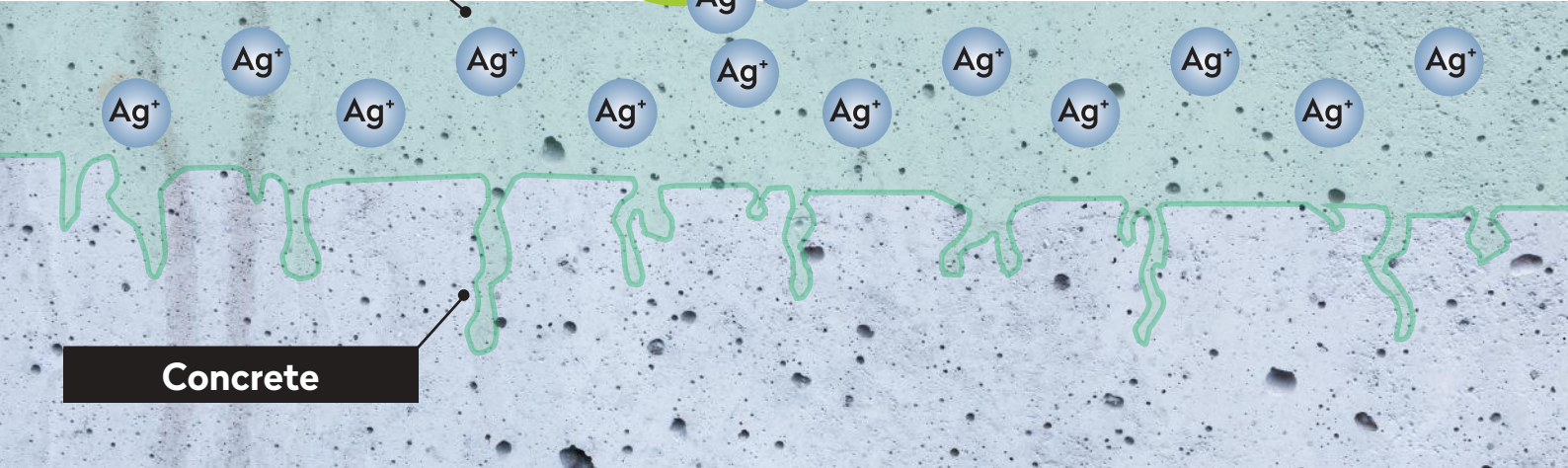
1 >> The bacterium absorbs the silver ions which it comes into contact with

2 >> Ions penetrate the bacterial cell membrane and destroy it



Treated surface

Concrete



CONCRETE GUARD LITHIUM ANTIBACTERIAL

FIELDS OF APPLICATION

Transparent antibacterial, dust-proof, high chemical resistance protective finishing treatments for concrete and cement, internal and external, new or existing, polished or non-polished surfaces. Surfaces with high frequency of passage of people for which the resistance of the surfaces to bacterial attack is fundamental.

It can be used on previous treatment based on consolidating agents such as:

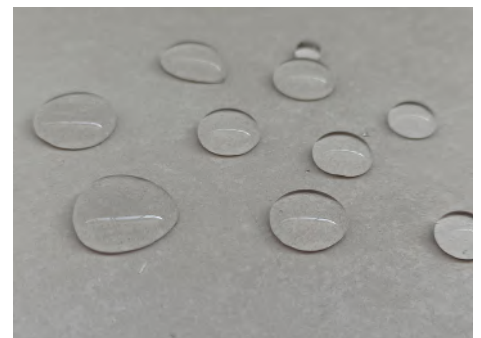
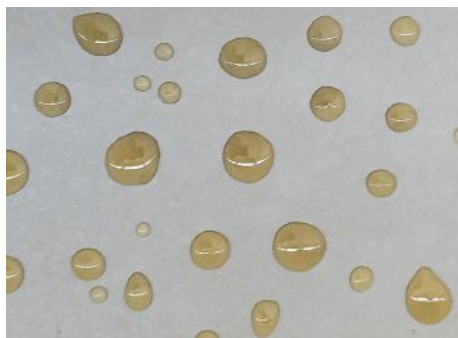
» **Concrete Hardener H10 / H35**

» **Concrete Hardener Lithium / Pro**

Intended for residential, commercial and production areas such as:

- ✓ Architectural concrete floors, shops, showrooms, production, packaging and warehouse areas.
- ✓ Prefabricated panels or concrete blocks.
- ✓ Limestone and natural stones in general.
- ✓ Brick surfaces.
- ✓ Concrete floors in institutional areas.
- ✓ Educational surfaces (schools, universities).
Health facilities.
- ✓ Sporting environments.
- ✓ Food sector (food supply and sale).
- ✓ In the regulations for health and safety at the workplace, as anti-bacterial nesting.
- ✓ Garages and parking areas.
- ✓ Cement plasters.
- ✓ Prefabricated panels or exposed concrete blocks.
- ✓ Limestone and natural stones in general.
- ✓ Exposed bricks and tuff.
- ✓ Concrete products.

WATER-REPELLENT and ANTI-STAIN treatment



PROPERTIES

- **ANTIBACTERIAL ACTIVITY R₂₅ (ISO 22196) 99.999% REDUCTION IN BACTERIAL LOAD**

SAMPLE CONTACT TIME	AVERAGE VIABLE COUNT (CFU/RATE)	
	STAPHYLOCOCCUS AUREUS	ESCHERICHIA COLI
TIME=0	1.2x10 ⁶	1x10 ⁶
TIME=24 H	<10	<10

- **MOULD RESISTANT (UNI 11021)**

ASPERGILLUS NIGER	BYSSOCHLAMYS FULVA	PENICILLIUM FUNICULOSUM
GROWTH RATE	GROWTH RATE	GROWTH RATE
0	0	0

EVALUATION INDEXES

- 0 = no fungal growth development
- 1 = weak fungal growth development
- 2 = weak development, surface area covered ≤25%
- 3 = average development, surface area covered ≤50%
- 4 = strong development, surface area covered >50%

CONCRETE GUARD LITHIUM ANTIBACTERIAL

ADVANTAGES

- 1 | Implements the surface mechanical resistance offering a pleasant aesthetic appearance.
- 2 | Reduces the absorption of liquid water (better waterproofness) without altering the passage of water vapour.
- 3 | Increased resistance to chemical attacks, salts and pollutants dissolved in water, therefore freeze-thaw cycles, and stains by decreasing the dirt's adherence.
- 4 | It limits efflorescence on the surface, in damp substrates.
- 5 | Reduces stains due to vegetable and mineral oils.
- 6 | Avoids alkali / aggregate reaction (popout).
- 7 | Maintains the aesthetic appearance of the treated surface.
- 8 | Easy atomisation and maximum smoothness with microfibre or floor polisher.
- 9 | Quick drying.
- 10 | Very low COV.

Reduces the risk of
"alkali-aggregate" reactions (ASRs)



Avoids the disruptive action of salts
and "freeze-thaw" cycles



MAIN FEATURES



Improved resistance to vegetable oil and mineral oil stains.

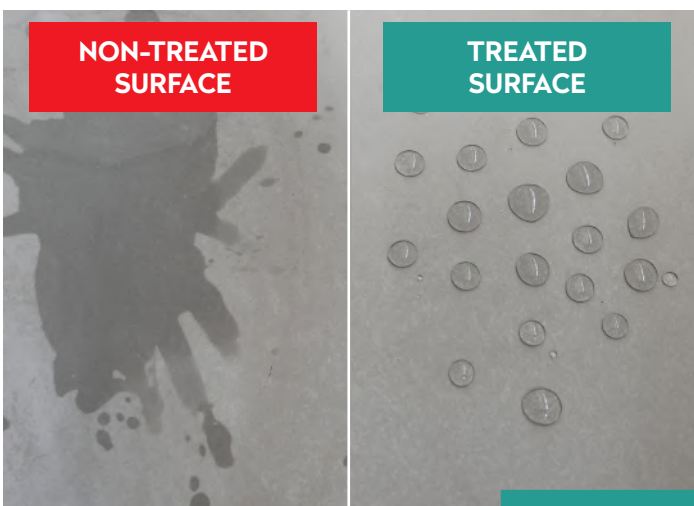
Improves resistance to freezing and thawing cycles.

It creates a micro film that does not compromise the breathability of the surface.



Reduces absorption of liquid water (better waterproofness) without altering the passage of water vapour.

Increased resistance to chemical attacks, salts and pollutants dissolved in water and stains by decreasing the dirt's adherence.



Decreases the risk of alkali-aggregate reactions (ASRs).

It prevents efflorescence due to rising damp.

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USE

It is recommended to gently shake the ready-to-use product.

» **Attention:** *surfaces that have been cleaned or treated with acidic substances should be neutralised before the intervention.*

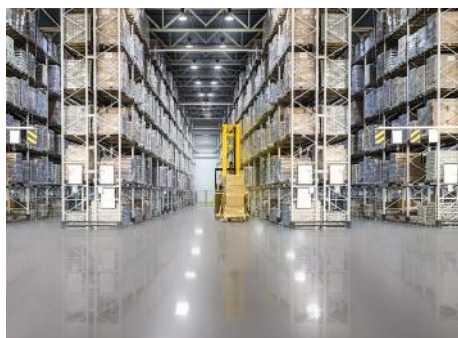
Apply the product on the dusted, cohesive and dry surface with a low pressure (HVLP) or manual spray pump, spreading evenly with a dampened microfibre cloth or floor polish (while on surfaces with a rough profile such as brushed cement, use industrial mops).

The yield of the first coat will depend on the absorption power of the substrate (type of sanding grain and/or presence of consolidating hardeners). **Yield:** 35 – 70 m²/l.

Depending on the absorbing power of the substrate and the environmental conditions, **apply the second coat once it is possible to walk on the surface, usually within 1 hour..** Avoid applying the next coat the following day. High speed polishing is not essential between the coats. Second coat will be better than the first. **Yield:** Approx. 70 m²/L

The second application will improve gloss and stain protection. Polishing the individual coats with a high speed polisher (1500-2100 rpm) and a pad of natural material will accelerate and improve the gloss. Do not cover treated surfaces for at least 1 week with protective coatings, which may slow down the treatment and cause damage due to humidity.

Ideal for residential, commercial, production, indoor and outdoor areas



MAINTENANCE

We recommend the use of the Stone Sealer Soap or Emmerol or Phneutral detergent for washing and routine maintenance of the flooring.

Avoid the use of acidic products, butyl compounds and high-boiling solvents such as DLimonene from citrus fruits.



WARNINGS

SAFETY/HEALTH INFORMATION: KEEP OUT OF REACH OF CHILDREN. Dispose of waste in accordance with local laws. Although the material is non-toxic and non-hazardous, the treatment is alkaline and may cause eye and skin irritation. Wear safety goggles and gloves. If sprayed into the eyes, rinse with water and consult a doctor if irritation persists.

Wash promptly. Do not ingest. If swallowed, do not induce vomiting, drink water and call a doctor. Avoid contact with the eyes. Wear protective clothing. Surfaces can be slippery when treated with the product. Further safety and first aid information can be found in the safety data sheet.

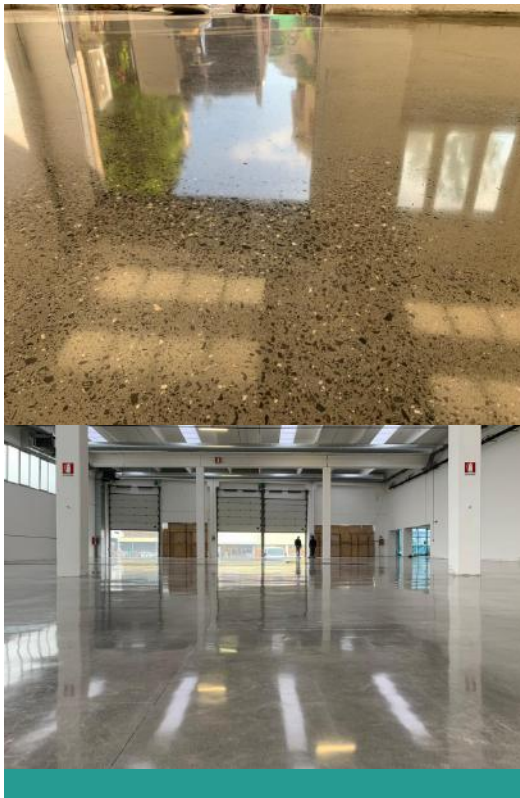
Appearance	Milky liquid
Active ingredients	100% of solids
Ph	11.5
Density	1.09 ± 0.05 kg/l
COV	< 30 g/l (2004/42/CE)

Packaging: 5 L – 25 L tanks
Storage: the product is stable for 12 months in the containers supplied, tightly closed, and at a temperature between 5 and 30°C.





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IMPORTANT WARNINGS

For applications on bricks and terracotta, slight toning of the material may occur; therefore, it is advisable to carry out a test under site conditions. The instructions given in this sheet are indicative of an average case history and do not replace the assessment of the professional user who will have to decide on the right product and its best application in relation to the concrete situation they are working with. **Before each application, carry out a compatibility test of the product for the use required, for the materials and for the environment for which it is intended, in relation to the professional and personal, environmental and general conditions in which it is to be used.** The supplier, however, not present at the time of application, is not liable for damages of any kind, direct or indirect, to persons, property, the environment, activities or work in progress, resulting from the choice and application of the product as these constitute a free and conscious professional choice of the user.



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