

ANTIGRAFFITI

Transparent nanomeric barrier for protection against dirt, with “anti-graffiti” effect



TECHNICAL SPECIFICATIONS



FIELD OF APPLICATION

APPLICATIONS



Description

ANTIGRAFFITI is an aqueous suspension of new-generation hybrid organic-inorganic molecules produced with sol-gel technology.

The active components of ANTIGRAFFITI react with the application support creating a colourless nanometric film with high transparency, featuring excellent protective properties:

- Extremely oleophobic and hydrophobic.
- High anti-adhesive and detaching power.
- High breathability and permeability to water vapour.

The combination of these three characteristics ensures that ANTIGRAFFITI exerts a considerable “anti-graffiti” effect on the application surfaces.

In particular, ANTIGRAFFITI prevents pigments/colourants and binders of spray paints and lacquers (typically used for wall painting and for graffiti) from penetrating deeply into the support, blotching it irreversibly.

Once the building surface has been protected with ANTIGRAFFITI, any subsequent blotches can be easily cleaned without aggressive means using GRAFFITI REMOVER.

The action of the GRAFFITI REMOVER does not alter the protective effect of ANTIGRAFFITI.

After the graffiti has been removed, the surface does not need to be treated again (permanent anti-graffiti effect).

ANTIGRAFFITI is eco-friendly and does not contain fluorinated compounds.

Field of application

ANTIGRAFFITI is ideal for use on the most common construction materials used in the building sector:

- Cement-based products in general (concrete, mortars, panels, slabs, tiles, objects in general).
- Products formulated with hydraulic binder different in composition from cement (e.g. hydraulic lime).
- Substrates consisting of aerial binders such as gypsum and hydrated lime.

Stones and materials with a mineral and porous, silicate or non-silicate matrix (natural stones such as travertine, tuff, sandstone, basalt, marble, granite, limestone, etc.), bricks, cotto, etc.

When applied on mineral matrices (based on cement, hydraulic lime, aerial binders, bricks, stone of various origin, cotto, etc.) ANTIGRAFFITI imparts water-repellency on oily organic substances (oil and grease) and on binders and pigments normally contained in spray paint and cans available on the market.

This implies that structures treated with ANTIGRAFFITI can withstand the adhesion of dirt and paint, besides being easy to clean from fouling built-up over time.

Advantages

- Extremely repellent to water, oil and grease.
- Protection of the surfaces against penetration of soluble pollutants that frequently have a negative effect on objects (chlorides, nitrates, sulphates, etc.).
- Anti-dirt effect with resistance to adhesion of various categories of substances carried by water or organic solvents.
- High cleanability.
- “Anti-graffiti” effect against soiling of different nature and origin (sprays, markers, paints, varnishes, enamels, etc.).
- High resistance to algae attacks (resistance to the proliferation of microorganisms, particularly moulds, algae and moss) without the use of biocides which are normally hazardous to human health and the environment.
- The treatment is invisible as ANTIGRAFFITI leaves a transparent film that has a negligible effect on the treated

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object's final appearance (not visible).

- Resistance to UV rays and weathering.
- Durability of the treatment to cleaning cycles. ANTIGRAFFITI withstands, without having to re-apply it, several graffiti removal treatments with GRAFFITI REMOVER.
- Long-term stability of the treatment with maintenance of the characteristics imparted on the surface.
- High permeability to water vapour and breathability.

General preparation of the laying support

- Before the application, the surface must be thoroughly cleaned (also by means of a power wash, if necessary).
- Wait for the surface to dry completely before proceeding.
- Remove all impurities (e.g. stains, algae, moss, etc.) which could limit the product's efficacy or aesthetic appeal.
- Any surface defects such as cracks or joints must be repaired with suitable repair material.
- Normally it is not necessary to use a specific primer to prepare the laying substrate.

Specific preparation of the laying support

On highly porous and absorbent laying supports, apply in advance one coat of ANTIGRAFFITI diluted with water (ratio 1:1 by volume).

This base coat will sensibly reduce the quantity of ANTIGRAFFITI used in the successive coat of the treatment.

The product can be applied by spraying, with a brush or roller.

After the application of the base coat, wait 10–20 min (depending on the weather conditions) before proceeding with the coat of treatment of ANTIGRAFFITI undiluted.

Preparing the product

- Shake before use.
- The product is ready-to-use but can be diluted with water in the cases indicated in this Technical Sheet.
- Apply only with outdoor and surface temperatures between +5°C and +40°C.

Application of the product

- On the suitably prepared laying surface, apply ANTIGRAFFITI by spraying, with a brush or roller.
- In this phase, always proceed from bottom to top. This will prevent the involuntary and non-homogeneous hydrophobicising and oleophobicising effect due to the product dripping on untreated zones.
- In the case of two successive applications (see "Consumption" paragraph for a detailed analysis), the first layer (diluted or as is) already makes the surface significantly water-repellent, thus the second layer applied on top can lead to the formation of droplets.
- Immediately treat these drops with a brush to make the surface homogeneous and free of lines and streaks.

► Protection of the surface during curing

The product takes at least 24 hours to dry and react with the matrix (depending on external conditions and the nature of the support).

During this time, the treated surface must be adequately protected against humidity, water or chemical products of any type.

► Curing of the product

- At temperatures between +20 and +30°C, the product takes 48 hours to cure.
- At lower temperatures (10–15°C), no less than 4 days.

Consumption

The consumption depends on the specific absorption of the material to be protected.

To determine the exact consumption, carry out a preliminary trial on a small portion of the coating to be treated.

type of application	minimum consumption	maximum consumption	UoM	notes
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Highly dense material ("closed", such as compact and polished marble and granite)	20	50	mL/m ²	Application with a SINGLE COAT
Poorly porous material (marble, slate, basalt, travertine, clinker, bricks)	60	100	mL/m ²	Application with TWO light COATS recommended
Moderately porous to porous material (concrete, cement, hydraulic and aerial lime mortars, siliceous sandstone, gypsum)	100	200	mL/m ²	Application in 2-3 COATS: the first with the diluted product (as a primer), the second and third (optional) with the pure product.
Highly porous material (limestone, tuff, sandstone, cellular concrete)	200	300	mL/m ²	Application in 3 COATS: the first with the diluted product (as a primer), the second and third with the pure product.

Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically.

Useful application tips

- Protect the product against frost.
- Thick or frozen (even partially) parts of the product at low temperature can be resolved by mildly heating them and mixing vigorously.
- The product is not harmful to human health; nonetheless, read the Safety Sheet before use.

Maintenance

- Cleaning of graffiti using water alone (or water and detergent)
 - In case of dirt of any type, first check whether it can be removed with water alone or with water and detergent for hard surfaces.
 - It is possible to apply a high-pressure power wash, preferably with hot water.

► Cleaning of graffiti using GRAFFITI REMOVER

- If the wash with water alone or water and detergent was ineffective, it is necessary to use the paint stripper specially formulated for ANTIGRAFFITI, GRAFFITI REMOVER.
- Apply an abundant amount of GRAFFITI REMOVER with a brush on the surface to be treated and wait roughly 15-20 minutes.

This time will allow the product to take effect without drying.

- Wash away GRAFFITI REMOVER with a power wash (preferably with hot water) and verify the condition of the surface after the treatment.
- If necessary, GRAFFITI REMOVER can be applied several times.

► Restoration of the protective function of ANTIGRAFFITI

ANTIGRAFFITI has the distinctive property of being able to withstand multiple washing and staining cycles.

However, after various washing cycles and due to normal wear of the coating, the anti-graffiti characteristics of the treatment may have to be restored fully or partly.

In this case:

- Apply ANTIGRAFFITI (preferably diluted 1:1) on the zones to be restored.
- Remove the excess product with absorbent paper where it is "refused" by the surface.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Chemical nature	-	Aqueous suspension of hybrid organic-inorganic compounds
Size of the protective film	-	Nanometric

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► PRODUCT IDENTIFICATION DATA	UoM	value
Appearance	-	Yellowish-white cloudy-opalescent liquid
Density at 20°C, EN ISO 2811-1	kg/L	1,00 ± 0,02
pH (potentiometric method) at 23°C, ISO 4316	-	5,0 ± 0,4
► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Surface drying time (23°C, 50% R.H.), EN ISO 9117-3	min	30 ± 5
Humidity/water sensitivity interval (after application)	hours	24
Full curing time (at +20°C, 50% R.H.)	hours	48
Full curing time (at +10°C, 70% R.H.)	days	4

Storage of the product

- 18 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +40°C.
- Protect the product against frost.

Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	15 flaconi da 1 L	NO	21 scatole	
-	4 taniche da 5 L	NO	24 scatole	

Legenda ADR:
NO = merce NON PERICOLOSA

LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website www.nordresine.com contains the latest revision of this datasheet.

EDITION

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