

Nanomeric transparent barrier for protection against dirt and with "anti-graffiti" effect



SPECIFICATIONS

FIELD OF APPLICATION























Description

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

The active components of ANTIGRAFFITI react with the application medium giving rise to a colorless nanometric film with high transparency with excellent protective characteristics:

- · Very high oleophobicity and hydrophobicity.
- High anti-adhesive and release power.
- · High breathability and vapour permeability.

The combination of these three features means that ANTIGRAFFITI exerts a remarkable "anti-graffiti" effect on the application surfaces.

In particular, ANTIGRAFFITI prevents pigments/dyes and binders of spray and lacquer colors (typically used in wall painting and graffiti) from penetrating deeply into the support, smearing it irreversibly.

Once a building surface has been protected with ANTIGRAFFITI, subsequent soiling can be easily cleaned in a non-aggressive manner using GRAFFITI REMOVER.

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

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

ANTIGRAFFITI is environmentally friendly and does not contain fluorinated compounds.

Field of application

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

- Cement-based products in general (concrete, mortars, panels, solid wood, tiles, products in general).
- Products based on hydraulic binders, including those other than cement (e.g. hydraulic lime).
- Supports based on airborne binders such as gypsum and hydrated lime.

Stones and materials with mineral and porous matrix, silicate or not (natural stones such as travertine, tuff, sandstone, basalt, marble, granite, limestone,..), bricks, terracotta etc ...

Applied to matrices of a mineral nature (cement-based, hydraulic lime, aerial binders, bricks, stones of different origins, terracotta, etc.) ANTIGRAFFITI imparts repellent characteristics toward water, organic substances of an oily nature (oils and fats), and toward binders and pigments commonly contained in commercially available spray or tin paints.

This means that the products treated with ANTIGRAFFITI are resistant to the adhesion of dirt and paints as well as easy to clean from deposits accumulated over time.

Advantages

- Very high repellency towards water, oils and fats.
- Protection of surfaces from the penetration of soluble pollutants that frequently have a negative effect on products (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 soils of different nature and origin (sprays, markers, varnishes, enamels, etc.).
- High resistance to algae attack (resistance to the proliferation of microorganisms such as mold, algae and moss) without the use of biocides, which are dangerous for humans and the environment.
- Invisibility of the treatment because ANTIGRAFFITI gives rise to a transparent film that has a negligible impact on the external appearance of the treated product (it is not visible).
- UV and weather resistance.
- Durability of the treatment during cleaning cycles. ANTIGRAFFITI withstands, without the need for reapplication, different graffiti removal treatments with GRAFFITI REMOVER.
- Long-term stability of treatment.
- · High water vapour permeability and breathability.

General preparation of the laying support

- Before application, the surface must be thoroughly cleaned (also by hydrowashing, if necessary).
- Allow to dry thoroughly before proceeding.
- Remove all impurities (e.g. stains, dust, algae, moss, etc.) that could limit the effectiveness or aesthetic performance of the product.
- Repair any defects on the surface such as cracks or joints with suitable restorative material.
- In general, a specific primer is not required for the preparation of the substrate.

Specific preparation of the laying support

On particularly porous and absorbent laying media, apply in advance a base coat of ANTIGRAFFITI diluted with water (ratio 1: 1 by volume).

This basic coat will significantly reduce the amount of ANTIGRAFFITI consumed in the next coat of treatment. The application can be done either by spraying, brush or roller.

After applying the basic coat wait 10 - 20 min (depending on weather conditions) before proceeding with the undiluted ANTIGRAFFITI treatment coat.

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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 Data Sheet
- Apply only at outside and surface temperatures between +5°C and +40°C.

Application of the product

- On the suitably prepared laying surface, apply ANTIGRAFFITI by spray, brush or roller.
- Always work from the bottom to the top at this stage. This will avoid an involuntary and uneven hydrooleophobic of the substrate due to product dripping on areas not yet treated.
- In the case of two successive applications (see Section "Consumption" for a more comprehensive discussion), with the first coat (thinned or as is) the surface already acquires significant water repellency and thus the overlapping layer may lead to drop formation.
- Treat these drops immediately with a brush to make the surface homogeneous and free of lines and streaks.
- ► Surface protection during maturation

The product takes at least 24 hours to dry and react with the matrix (depending on external conditions and the







nature of the substrate).

During this time the treated surface must be adequately protected from moisture, water or chemicals of any kind.

- ► Maturation of the product
- At temperatures between +20 and +30°C, the maturation of the product takes 48 hours.
- At lower temperatures (10 15°C) not less than 4 days.

Consumption

type of application	minimum consumption	maximum consumption	u.m.	notes
Highly dense material ("closed", such as compact and polished marble and granite)	20	50	mL/m²	(1)
Poorly porous material (marble, slate, basalt, travertine, clinker, bricks)	60	100	mL/m²	(2)
Moderately porous to porous material (concrete, cement, hydraulic and aerial lime mortars, siliceous sandstone, gypsum)	100	200	mL/m²	(3)
Highly porous material (limestone, tuff, sandstone, cellular concrete)	200	300	mL/m²	(4)

Consumption is a function of the specific absorption of the material to be protected. To determine the exact consumption, carry out a preliminary test on a small portion of the coating to be treated.

- (1) SINGLE COAT application.
- (1) It is recommended to apply TWO light COATS.
- (3) Application in 2-3 COATS: the first with diluted product (as 'primer'), the second and third (optional) with pure product.
- (4) Application in 3 COATS: the first with diluted product (as 'primer'), the second and third with pure product.

Cleaning of tools

- Fresh product: cleaning with water (also hydrowashing).
- Hardened product: mechanical removal.

Useful application tips

- Protect the product against frost.
- Thickening or freezing (even partial) of the product at low temperature can be resolved by heating it mildly and mixing it vigorously.
- The product is not dangerous, however, consult the Safety Data Sheet before use.

Maintenance

- ► Graffiti cleaning with water only (or water and detergent)
- In the presence of dirt of any kind, first check whether it can be removed with water alone or water and detergent for hard surfaces.
- Pressure washing is possible, preferably with hot water.
- ► Erase graffiti with GRAFFITI REMOVER
- If washing with water or water and detergent has been ineffective, it is necessary to use the specific paint stripper: GRAFFITI REMOVER.
- Apply GRAFFITI REMOVER generously with a brush on the surface to be treated and wait about 15 20 minutes.
- ► Restoring the protective function of ANTIGRAFFITI

ANTIGRAFFITI can withstand multiple wash/stain cycles.

However, after several wash cycles and due to normal wear and tear of the coating, it may be necessary to restore all or part of the anti-graffiti treatment.

- In this case:
- Apply ANTIGRAFFITI (better if diluted 1:1) on the areas to be restored.
- Remove excess product with absorbent paper where it is "rejected" by the surface.







Technical data

► PRODUCT IDENTIFICATION DATA		value
		Aqueous
Chemical nature	_	suspension of
Chemical nature	<u>-</u>	organic-inorganic
		hybrid compounds
Protective film thickness	-	Nano-metric
		Turbid-opalescent
Appearance	-	liquid of yellowish-
		white color
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 PERFORMANCE		value
Surface drying time (23°C, 50%RH), EN ISO 9117-3	Min	30 ± 5
Humidity/water sensitivity range (after application)	Hours	24
Full maturation time (at 20°C, 50% RH)	Hours	48
Full maturation time (at 10°C, 70% RH)	days	4

Product storage

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

Packages

VARIANT	PACKAGING	ADR	PACK / PALLET	COMPONENTS	NOTE
-	15 1 L bottles	NO	21 boxes		-
-	4 x 5 L canisters	NO	24 boxes		-

ADR legend:

NO = NON DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packaged as per Chap. 3.4 ADR)

SI = DANGEROUS goods

LEGAL NOTES

Any advice concerning the methods of use of our products reflects the current state of knowledge and does not imply any guarantee and/or responsibility as to the outcome of the application. Consequently, the customer must verify the product's suitability for the intended use and purposes by testing the product in advance. The Internet website www.nordresine.com contains the latest revision of this technical sheet: in case of any doubts, verify the date of revision (where missing, use the date of issue) by consulting the "PRODUCTS" section.

EDITION

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