Anti-Graffiti Non-Porous Surfaces

Technical Data Sheet

1 Description

NanoQuinn Anti-Graffiti Non-Porous is an advanced, high performance, long lasting one coat, anti-graffiti coating specially formulated to protect non-porous surfaces from the permanent defacing of undesirable graffiti.

With NanoQuinn Anti-Graffiti Non-Porous it's easy to protect metal surfaces, monuments and infrastructure from graffiti vandals. The anti-graffiti coating makes graffiti removal simple and quick without damaging the surface painted or otherwise. It eliminates the need for costly repainting, repairs and labour-intensive cleaning.

NanoQuinn Anti-Graffiti Non-Porous provides a thin barrier between the graffiti and the surface it's applied to, creating a new, easy to clean surface that prevents the graffiti from ever touching the protected surface underneath. This long-lasting barrier between the substrate and graffiti allows the continued removal of graffiti without damage to underlying paint, or the substrate itself.

The invisible finish is abrasion resistant and will not yellow with age. NanoQuinn Anti-Graffiti Non-porous is highly resistant to most types of aerosol spray paint and permanent markers, as well as dirt, chewing gum, oil, soot and pollution. Surfaces protected with NanoQuinn Anti-Graffiti Non-porous prevent the adhesion of graffiti and makes removal of paints and permanent markers so much easier.

Unlike other anti-graffiti coatings that erode away after a few cleanings, NanoQuinn Anti-Graffiti Non-porous allowsgraffiti to be removed countless times without reapplication. Spray, brush or roll it directly to metal surfaces. It applies and dries quickly, with excellent adhesion properties.

NanoQuinn Anti-Graffiti Non-porous is eco-friendly as it eliminates the need for harsh environmentally damagingchemical graffiti removers. In addition, coated surfaces become hydrophobic and easy clean/self-cleaning to normal environmental contaminants increasing the life of the coated item.

NanoQuinn Anti-Graffiti Non-porous is truly the 21st century cost effective solution to for contractors, councils, building managers and property owners in controlling and eliminating graffiti.

Applied correctly and in accordance with this TDS, NanoQuinn Anti-Graffiti Non-porous will remain effective for approximately 5 years on exterior environments to 7 years on interior environments.

2 Features and Benefits

- Long-lasting clear coating
- Excellent protection against graffiti
- Produces "Easy-to-Clean" surfaces
- Excellent adhesion to most substrates
- High UV and chemical resistance
- Economical
- Easy to apply
- Cures at room temperature
- Fluorine-free
- Temperature resistant from -50^{o}C to over 400°C.

3 Application

NanoQuinn Anti-Graffiti Non-Porous is particularly suitable for smooth, non-absorbent surfaces, such as one or twocomponent paints (polyurethane or epoxy systems), polyester paints, GRP surfaces, and for metal surfaces like aluminium, zinc, stainless steel, copper and several alloys (e.g. brass and bronze).

Typical applications for NanoQuinn Anti-Graffiti Non-Porous include:

- All metals and alloys including Aluminium, Stainless Steel, Copper, Brass and Tin
- Tank equipment and industrial plants (inside and outside)
- Traffic signs
- Public transport vehicles and shelters
- Ventilating systems
- Shipping Containers
- Mining Equipment
- Metal bollards, cabinets and outdoor furniture
- Bridges.

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4 Directions for Use

NanoQuinn Anti-Graffiti Non-Porous is supplied ready-to-use.

Apply NanoQuinn Anti-Graffiti Non-Porous using:

- HVLP, Conventional or Airless spray equipment.
- A "wipe-on" technique using Application Pad / Cloth. (Streaking or high spots may occur using a "wipe-on" technique. Avoid high spots by smoothing surface while wet).

Guide	Spray Nozzle	Spray Pressure
Suction Feed 	HVLP 0.8 – 1.3mm	50 - 60 PSI
Gravity Feed 	HVLP 0.8 – 1.3mm	50 - 60 PSI

NanoQuinn Anti-Graffiti Non-Porous must be applied at an ambient temperature of at least + 5 °C and a relative humidity of 30%-80%. Avoid direct sunlight. Apply the coating in dry conditions and never in rain. The coating is applied with an applicator. Any mistakes can be rectified within approx. 10 min of application.

After this the repellent effect of NanoQuinn Anti-Graffiti Non-Porous makes it impossible to apply another coat.During application, only small quantities should be decanted from the original container into the application container. Residues of unused NanoQuinn Anti-Graffiti Non-Porous should not be returned from the applicationcontainer to the original container.

Traces of water in the applicator should also be avoided. Applicators dampened with water **MUST NOT** be used. If dirt appears on the applicators during coating, they should be replaced with clean applicators to avoid dirt entering the coating.

The applicators cannot be reused once the coating has been applied. If the solution in the application container solidifies or a deposit forms, it can no longer be used. Solutions that are no longer useable must be disposed of properly. NanoQuinn Anti-Graffiti Non-Porous is dry-to-touch after about one hour.

5 Surface Preparation

The substrate to be coated must be clean, grease-free and ABSOLUTELY DRY. We recommend the use of the Bio-Intensive Organic Cleaner to remove any kind of stains and for effective cleaning. Areas which are difficult to reach, such as cavities or drainage channels etc. must be dried additionally with absorbent cloths or blown dry with compressed air. On contact with a damp substrate surface, NanoQuinn Anti-Graffiti Non-Porous reacts prematurely and cannot form a permanent seal.

The substrate temperature must be between + 5°C and + 30 °C, the relative humidity at 30 %-80 %.

NanoQuinn Anti-Graffiti Non-Porous will not adhere to a surface with oil, grease, silicone, wax or fluorination present. Solvents like acetone and paint thinner are also effective at removing surface contaminants. If using these solvents please ensure that they are kept away from heat, open flame and do not apply to hot metals.

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Specific instructions:

New metal	Degrease with a suitable solvent e.g. lacquer thinners, prior to painting
Rusted metal	Use a wire brush or chip with a chipping hammer to remove all loose, flaking surface rust, scale and flaking paint.
Previously painted surfaces	If there is any uncertainty as to whether there may be rust spots developing under the existing painted surface, we recommended that the old paint is completely removed before coating.

6 Coverage

The average coverage rate using the recommended HVLP spray gun is 10 -12ml per square metre. If applying by means other than a spray gun, (i.e. paint/roller brush), usage rates will be higher. (Also note usage will be higher in windy conditions)

NanoQuinn Anti-Graffiti Non-Porous is a single coat application. Avoid applying excessive amounts of the coating and do not apply multiple coats.

If there is an excess of coating on the surface material, spread it out evenly using a clean sponge or soft cloth whilst it is still wet. NanoQuinn Anti-Graffiti Non-Porous will be touch dry after about one hour.

7 Cure Time

The recommended curing conditions (until water resistant) are:

- 80 °C: two hours
- 130 °C – 180 °C: one hour
- Room temperature: 8–12 hours cure time at 22°C, 50% R.H.

The coating is fully effective after 5–7 days' curing at room temperature.

8 Working Conditions

Consult SDS for proper handling, clean-up, disposal, and use of personal protective equipment. Circulate sufficient air to maintain working environment below the PEL and LEL. Apply according to local, state, and federal (OSHA) regulations.

NanoQuinn Anti-Graffiti Non-Porous was developed to cure or crosslink in the presence of humidity. As a general rule, higher humidity results in a faster cure cycle. Lower humidity results in a slower cure cycle. Higher humidity may reduce flow and levelling of the coating.

It is important to spray NanoQuinn Anti-Graffiti Non-Porous in a dust-free environment to avoid surface contamination. Appropriate ventilation, approved respirator, protective clothing and rubber gloves are required to apply the Coating and for handling application equipment.

Clean equipment immediately after using Acetone. Never clean spray equipment with water.

The spray gun and nozzle can also be cleaned with n-butyl acetate.

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9 Physical Properties

- Appearance: colourless to pale yellow liquid
- Density: ca. 0.92 g/cm3
- Binder base: Organic polysilazane
- Solvent base: n-butyl acetate
- Flash point: < 21 °C

10 Shelf Life and Storage

NanoQuinn Anti-Graffiti Non-Porous is sensitive to moisture contamination. It is very important to quickly close thecontainer immediately after opening. Do not leave the container cap open for extended periods, which will allow solvents to evaporate and crosslinking to begin.

Moisture contamination or storage at high temps will cause gelation within the container.

Shelf Life:

- 12 months from delivery date, at 20 °C
- Storage temperatures must be dry and between 40°F (4°C) and 72°F (22°C). Higher temps will decrease shelf-life.
- Shelf life opened: 2 weeks.
- Container must be closed immediately after use to avoid moisture contamination.
- Do not leave container open for extended periods to avoid moisture contamination. Discard contents if it gels.

11 Surface Maintenance

Surfaces coated with NanoQuinn Anti-Graffiti Non-Porous do not need any special cleaning regime. After coating, the surface should be self-cleaning with rain or mechanical water spray.

If cleaning is necessary, we recommend using a low pH soap and water for clean-up. If the surface is attacked with graffiti, chewing gum, etc, we recommend the use of NanoQuinn Graffiti Remover to remove.

12 Safety Instructions

The instructions on the Safety Data Sheet must always be followed.

13 Disclaimer

The information, particularly the recommendations relating to the application and end-use of the products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions.

The above information is only offered, as a guide to the use of this product. Users should satisfy themselves that it is suitable for their needs. Since we have no control over the conditions under which it is used, we cannot accept and liability or responsibility for problems caused by the use and/or application of this product.

NanoQuinn™

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