

Cleargard

High Performance Anti-graffiti Coating

Description

A non-sacrificial, environmentally friendly, waterborne, two component polyurethane coating based on polyol dispersions which exceed the performance levels of typical solvent based systems. Cleargard offers excellent UV stability and is resistant to solvent cleaners. It also contains a siloxane additive which provides outstanding hydro and oleophobic properties allowing easy removal of most felt tipped markers and paints, without affecting the substrate material.


Cleargard is a high performance anti-graffiti coating for concrete and brickwork, designed to overcome the problems associated with solvent borne systems. The coating provides a clear gloss finish and can be applied directly onto the substrate or can be used as a protective overcoat to existing paint finishes.

Advantages

- Low environmental impact
- Non-flammable, low odour formulation
- Economical in use & equipment may be cleaned with water
- High performance, equal or better than solvent based systems
- Easily applied by brush or roller
- Versatile over-coat for existing finishes or direct application onto concrete, brick, block & timber
- Conforms to EN1504 Part 2

Technical Information

| | |
|---|-------------------------|
| Coverage | 5 m ² per kg |
| Drying time | 2-6 Hours |
| Application temperature | 5°C to 35°C |
| Solvent resistance (ASTM D 4752) | |
| MEK | >200 double rubs |
| Toluene | >200 double rubs |
| Isopropanol | >200 double rubs |
| Accelerated weathering 1000 hours QUV-A | |
| Gloss retention (ASTM G53) | 99 % |
| Delta E (ATSM E1455) | 2.5 |
| Salt spray - blister (ASTM B117) | 10 |

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| EN 1504-2 Surface protection product Coating | |
| Chemical resistance | |
| Hydrochloric acid | No visual defects |
| Sulphuric acid | No visual defects |
| Adhesion - concrete | >1.0 MPa |
| Dangerous substances | Comply with 5.3 |

Surface Preparation

Preparation shall be such as to leave dry, clean, sound surfaces, free from chemical contamination, oil, grease, dirt, dust, loose particles and laitance; methods include wire brushing, abrasion, needle gun or grit-blasting, to achieve a textured surface. Where the strength or surface stability of the substrate be in doubt, then we recommend that a trial area of Cleargard be applied to assess its suitability.

Painted Surfaces: mechanical abrasion will improve adhesion to existing well-bonded coatings. As a minimum, surfaces should be thoroughly cleaned to remove all traces of dirt, oil and grease, then allowed to dry before application.



Technical properties of Cleargard

| Properties | Standard | Performance Requirement | Declared Value |
|---|--|-------------------------|---|
| Appearance | | | Opaque liquid |
| Coverage | | | 5m ² /kg |
| Usable life | | | 1 hour |
| Dry film thickness (1 coat) | | | 77µm |
| Drying time; Set to touch Tack free Full cure | ASTM D1640 | | 2.5 hours 4 hours 6 hours |
| S.G. | | | 1.07 |
| Total solids | | | 48% |
| Application temperature | | | 5°C to 35°C |
| Specular gloss; 20° angle 60° angle | ASTM D523 | | 89 95 |
| Adhesion; Dry tape Dry scrape Wet tape (24 hours/21°C) Wet tape (4 days/21°C) | ASTM D3359 ASTM D2197 ASTM D3359 ASTM D3359 | | 5A >6kg 5A 5A |
| Adhesion - concrete | EN1542 | >1.0 MPa | >1.0 MPa |
| Flexibility; O-T bend | ASTM D4145-90 | | Pass |
| Impact resistance; Direct Reverse | ASTM D2794 | | >160 in-lbs >160 in-lbs |
| Hardness; Pencil Pendulum | ASTM D3363 ASTM D4366 | | 2H 220 |
| Chemical resistance; (7 Day exposure) Hydrochloric acid (10%) Sulphuric acid (10%) Nitric acid (5%) | EN ISO 2812-1 ASTM D1308 | | No effect No effect Very slight discolouration |
| Solvent resistance; MEK Toluene Isopropanol | ASTM D4752 | | >200 Double rubs >200 Double rubs 200 Double rubs |
| Artificial weathering 1000 hours QUV-A Gloss retention Delta E | ASTM G53 ASTM E1455 | | 99% 2.5 |
| Salt spray Blister (field) | ASTM B117 | | 10 |

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

All testing was conducted at 23°C under laboratory conditions, unless otherwise stated.

Surface Preparation (continued)

Concrete Surfaces; new concrete should be a minimum of 28 days old with a moisture content less than 6% (see Limitations).

High pressure water-blasting can be used if deemed appropriate, though surfaces and concrete will need to dry afterwards.

Blow holes or other minor surface imperfections can be repaired using Nupatch Cosmetic or Epibond. Larger defects can be made good with Nucem HB Mortar or Acropak HB Mortar (refer to these separate TDS).

Mixing

Mix only full units of Cleargard. The entire contents of the hardener should be added to the base container. Mix slowly using a variable speed high torque drill and helical stirrer for 2-3 minutes until it is homogenous. Care should be taken not to entrain excess air and to prevent any unmixed material remaining on sides and base of the mixing vessel. Thinning with water is not normally required.

Mixed resin can be decanted to roller trays and is then ready for immediate use.

Application Instructions

Cleargard should be applied at the correct coverage rate using a brush, applicator or medium nap roller at 5m²/kg. Actual coverage will depend on surface rugosity and porosity.

Normally one coat is sufficient. A second coat may be applied on very porous surfaces or where a high build is required. If required the second coat must be applied whilst the first coat remains tacky (within 4 hours) to ensure intercoat adhesion.

For spray application contact Nufins technical department.

Cleaning

Keep all mixing equipment and tools continuously clean throughout the day using clean water and avoid product build up.

Graffiti Removal

Use a clean cloth dampened with Nuwash solvent or similar. Wait for graffiti to loosen and then wipe with a clean cloth. Patches of heavier pollution may need secondary applications. The substrate does not require re-application of Cleargard after each cleaning operation.

Packaging

Cleargard is available in 5kg and 20kg units.

Storage

The shelf life is 12 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost. If stored in cold conditions the containers should be warmed prior to use as this will assist mixing and application.

Health & Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the very latest Information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

Limitations

Do not apply at temperatures below 5°C or when rain has been forecast. For application to damp or new concrete less than 28 days old, contact Nufins technical department. When applied direct to concrete, Cleargard may affect its appearance. Not suitable for concrete immersed under water.

Disclaimer

The information contained herein is to the best of our knowledge true and accurate and is given in good faith but without warranty. The user will be deemed to have satisfied themselves independently as to the suitability of our products for their own particular purpose. In no event shall Nufins be liable for consequential or incidental damages.

Users must always refer to the most recent issue of the Technical Datasheets, copies of which will be supplied on request.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide further information and arrange demonstrations.