Technical Datasheet

Hydrocoat

Water Dispersed Epoxide Resin Floor & Wall Coating

Description

A two component protective and decorative epoxy coating, designed to provide a tough matt finish which is both abrasion and chemically resistant, thus producing a surface which exhibits excellent cleaning properties. The low odour and complete absence of any solvents makes Hydrocoat ideal for application in abattoirs, kennels, breweries, dairies, bakeries and public areas where non-tainting is essential.

Advantages

- No primer required
- Easily & quickly applied by untrained operatives
- Low odour makes it ideal for confined areas
- Non-flammable & chemical resistant
- Improves hygiene & working environment
- Matt finish improves slip resistance
- Easily cleaned, hence reducing maintenance costs
- Hardwearing, durable & long lasting
- Conforms to EN 1504 Part 2

Applications

- Top coat for anti-slip coating systems
- Pharmaceutical, veterinarian, laboratories & hospitals
- Warehouses, food production & food storage areas

UKCA 0086	
Nufins, Kingston House, 3 Walton Road, Pattinson North, District 15, Washington, Tyne & Wear. NE38 8QA 23 0086-CPR-774186	
EN 1504-2 Surface protection system Coating	
Chemical Resistance Hydrochloric acid Sulphuric acid	 No visual defects No visual defects
Adhesion - concrete	>1.0 MPa
Dangerous substances	Comply with 5.3

Technical Information

Specific gravity: Clear Pigmented	1.0 1.2
Wet film thickness: Clear Pigmented	190 microns 153 microns
Application temperature	5°C to 35°C
Substrate application temperature	5°C to 35°C
Flash point	N/A
Solids content	45-65 %
Pot life @ 20˚C	2 hour
Pot life @ 5˚C	In excess of 4 hours
Full cure	5-7 days
Coverage	4-6 m² per kg

Surface Preparation

The surface to be coated should be dry, sound and free from loose particles. New concrete should be at least 28 days old before application. Vacuum grit blasting or alternative mechanical surface preparation equipment is recommended to achieve a roughened surface.

Concrete should have a direct tensile strength of ≥1MPa. Where the strength or surface stability of the substrate be in doubt, then we recommend a trial area of Hydrocoat be applied to assess its suitability.

Damaged or worn areas should be made good using a compatible repair mortar such as Nupatch Cosmetic or Epicon FS Mortar.

Technical properties of Hydrocoat

Properties	Standard	Performance Requirements	Declared Value
Appearance			Clear or pigmented resin
Coverage			4-6 m^2 per kg
Usable life			1-1.5 hour
Dry film thickness			75-85 µm
Full cure			5 days @ 23°C
Specific gravity			1.0 Clear 1.2 Pigmented
Total solids			30-60 %
Application temperature			5°C to 35°C
Adhesion - concrete	EN 1542	>1.0 MPa	>1.5 MPa
Capillary absorption & permeability to water	EN 1062-3	<0.1 $kg/m^2.h^{0.5}$	<0.1 $kg/m^2.h^{0.5}$
Slip resistance	EN 13036-4		>40 units (Class 1)

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.

1 N/mm^2 = 1 MPa

1 kN/mm^2 = 1 GPa

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Chemical Resistance

Performance of Hydrocoat tested by immersion at 20°C against a range of aggressive chemicals.

Acids	
Hydrochloric Acid (conc.)	Fair
Nitric Acid, 25 %	Fair
Sulphuric Acid, 50 %	Fair
Lactic Acid, 10 %	Fair
Acetic Acid, 10 %	Fair
Citric Acid, 20 %	Fair
Alkalis	
Sodium Hydroxide, 50 %	Good
Ammonia, 10 %	Good
Hydrocarbon Solvents	
White Spirit	Good
Methylated Spirits	Good
Xylene	Good
Butanol	Fair
Oils	
Lubricating Oil	Good
Petrol	Good
Skydrol	Fair
Aqueous Solutions	
Sodium Hypochlorite (Bleach)	Good
Sugar Solution (saturated)	Good
Salt Solution (saturated)	Good
Ammonium Sulphate, 10 %	Good

Mixing

Mix only full units. The base component should be thoroughly pre-stirred to remove any settlement using a variable speed high torque drill and helical stirrer. The entire contents of the hardener should be added to the base container and slowly mixed for 2-3 minutes until homogenous. Care should be taken not to entrain excess air and to prevent unmixed material remaining on sides and base of the mixing vessel.

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

Application Instructions

Apply to prepared substrates by brush or roller. One or two coats are normally recommended. The second coat should be applied within 24 hours of the first and will ensure optimum opacity. Where the Hydrocoat is to be used in wet work areas a light scatter of kiln dried sand (0.3 - 1mm) can be broadcast at a rate of approximately 3kg/m² into the first coat of resin whilst wet. Once resin has cured, excess sand should be removed by brush or vacuum before over-coating, to produce an anti-slip finish.

Cleaning

Keep all mixing equipment and tools continuously cleaned using clean water and avoid product build up.

Packaging

Hydrocoat is available in 5kg units (4.2 litre).

Actual coverage & consumption is dependent on surface profile & porosity.

Aggregates are available in 25kg bags.

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 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

Applications should only be made when the temperature is at least 3°C above dew point. Do not apply at temperatures below 5°C or when rain is expected. For applications to new concrete and asphalt, please contact Nufins technical department.

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.

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