

EPOCOAT 300 / NAVIGUARD NM

Solvent-free Epoxy Coating

DATA SHEET 11/08

PROPERTIES AND RECOMMENDED USAGE

Paint type: EPOCOAT 300 / NAVIGUARD NM is a two component, solvent-free epoxy coating, which has an excellent resistance to water and a wide range of chemicals.

Typical uses: EPOCOAT 300 / NAVIGUARD NM can be used on blast cleaned steel and on properly primed fully cured concrete surfaces which are exposed to mechanical abrasion and continuous chemical immersion or spillage.

The coating has been tested and found suitable for use in the food industry (1999-01350-1/2, Lahti Research Laboratory). It can also be used in drinking water tanks (2004-08843-01/03, Environmental Laboratory, Helsinki City and Underwriters Laboratories Inc., USA).



BARRIER MATERIAL
ANSI/NSF 61
38BZ
Max 23°C, 67.7 cm²/l

EPOCOAT 300 / NAVIGUARD NM is recommended for use on water storage tanks, oil tanks and inner surfaces of process chemical containers and pipes in normal temperatures. Flour, sugar and other foodstuff silos, walls and machine foundations in process and pharmaceutical plants and the dairy industry. Ship's fresh water tanks.

Most common SFS-EN ISO 12944-5 systems:

A5M.04 EP500/2-FeSa2½

Chemical resistance: EPOCOAT 300 / NAVIGUARD NM has a good resistance to water, fuel oil and a wide range of chemicals for continuous immersion or spillage, when correctly applied. A detailed chemical resistance has to be worked out in each case.

Temperature resistance: Used in recommended paintsystems and correctly applied EPOCOAT 300 / NAVIGUARD NM withstands continuous immersion in water up to 40°C.

Colour retention: Colour may change under the influence of UV-radiation and chemicals.

TECHNICAL DATA

Volume solids:	approx. 100 vol.%
Total mass of solids*:	approx. 1230 g/l
VOC value*: (Volatile organic compound)	approx. 4 g/l

(*Values are calculated.)

Mixing ratio:

Resin 3 parts by volume
Cure 1 part by volume

Pot life: at +23°C

approx. 30 min after mixing
(reduced at higher temperatures)

Drying times:

300 µm dft at:	+15°C	+23°C
To touch	16 h	10 h
To handle	30 h	16 h
To recoat without sanding:		
□ min	16 h	10 h
□ max	2 d	2 d
Fully cured	10 d	7 d

Calculated theoretical coverage and recommended film thickness:

Dry	Wet	Coverage
250 µm	250 µm	4,0 m ² /l
300 µm	300 µm	3,3 m ² /l

Practical coverage:

Depends on wind conditions, structure to be painted, roughness of the surface and application method.

Colour: White, grey

Thinner and cleaner: OH 17 or OH 13

Standard airless spray max 5 %.

NOTE! Do not thin with OH 17 if used in drinking water tanks.

Finish: Glossy

Storage: max. +30°C

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APPLICATION INSTRUCTIONS

Surface preparation:

Steel surfaces:

Dust, oils, grease and other foreign matter that could prevent adhesion, should be removed using a suitable method (SFS-EN ISO 8504-3, SFS-EN ISO 12944-4). To protect steel surfaces exposed to environmental corrosion or immersion in fresh water, Sa2½ (SFS-ISO 8501-1, SFS-EN ISO 8504-2) standard is recommended as minimum cleaning grade. Sa3 is recommended if the surface is exposed to chemical immersion. Roughness: using abrasives suitable to achieve Grade Medium G (50 - 85 µm, Ry5) (ISO 8503-2). Paint application should take place immediately after blasting otherwise air driers must be used.

New unpainted concrete surfaces:

Abrasive blasting is recommended for concrete surfaces that will be exposed to immersion or mechanical abrasion to remove laitance and other contaminants. Concrete splashes should be removed by grinding. Holes and cracks should be filled with epoxy surfacer.

Old/painted concrete surfaces:

Grease and oil should be removed by emulsion cleaning. Loose or unsuitable coating should be removed by scraping or blast cleaning. Concrete surfaces and intact old paint should be blast cleaned to make surfaces rough and absorbing.

Primer:

Steel surfaces: EPOCOAT 300 / NAVIGUARD NM is to be applied either directly on blast cleaned steel or on EPOCOAT 300 / NAVIGUARD NM.

Concrete surfaces: Apply NORMAFLOOR 205, solvent-free lacquer, with a mohair-roller if the concrete surface is more than 4 weeks old. If the surface is damp or less than 4 weeks old use NORMAFLOOR 105 Epoxy Primer.

Top Coat: EPOCOAT 300 / NAVIGUARD NM

Environmental conditions during application:

The surface should be dry and clean. During application and drying time the temperature of the varnish should be 20-25°C, air and surface temperature should not be below +15°C and the relative humidity below 70 %. The surface temperature should be min 3°C above the dewpoint of the air.

Method of application:

High pressure airless spray (pressure ratio 1:60). Stir resin and cure separately and then mix both components thoroughly. The mixing ratio is 3:1 (resin:cure) by volume. The mixed paint should then be poured into the spray container where it should be mixed once more. When using standard airless spray the paint can be thinned max. 5 % (OH 17 or OH 13).

When painting fresh water containers, thinner no 17 (OH 17) is not allowed to use. When painting large areas or if the EPOCOAT 300 / NAVIGUARD NM will be in immersion service it is recommended to use 2 component spraying equipment for the application. The paint should not then be thinned. The optimum spraying temperature of the paint without thinning is 23-25°C. High pressure airless spray with a nozzle tip of 0,017" - 0,026" orifice. Spray angle depending on the object to be painted.

Apply EPOCOAT 300 / NAVIGUARD NM by holding the spray-gun at right angles from the object and cross spray corners, handwelds and other places difficult to cover properly by single strokes. Make even parallel passes with 50 % overlap.

Welding seams, edges, corners and bolts should be touched up by brush before spray application.

SAFETY

Please follow the environmental and safety instructions displayed on the container and Safety Data Sheet.

Use under well ventilated conditions. Do not breathe or inhale mist, use respirator mask. Avoid skin contact. Spillage on the skin should immediately removed with suitable cleanser, soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and if necessary seek medical advice.

For specific information on hazardous constituents and more detailed safety measures see Safety Data Sheet.

DISCLAIMER

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, as the paint is often used under conditions beyond our control, we cannot guarantee anything but the quality of the paint itself. We reserve the right to change the given data without notice.