

Nivapol Polycoat CFM

Spray applied polyurethane waterproofing membrane

Description

Nivapol Polycoat CFM is a solvent free, two component, coloured waterproofing membrane. It is reactive and can only be applied by special, two component spray equipment.

Areas of Application

Polycoat CFM is intended for use in general waterproofing applications such as car park decks, podium decks, cut and cover tunnelling, bridge decks under asphalt and concrete, and other areas where there is no requirement for a fire retardant system.

Using the appropriate primer, Polycoat CFM can be applied to most substrates including concrete, galvanised steel, aluminium, UPVC, glass reinforced polyester etc.

Features and benefits

Polycoat CFM system offers distinct advantages to owners and specifiers alike:

- Fast reacting
- High build capability
- Application to vertical surface without runs
- Easy application to complicated details
- Fast installation
- Monolithic - no laps, welds or seams
- Fully bonded
- High water vapour permeability – low risk of blistering
- Excellent mechanical properties
- Excellent crack bridging capability
- Resistant to puncture
- Resistant to standing water
- Thermoset – does not soften at elevated temperatures
- Remains elastic at low temperatures-Tg approx. - 45°C
- Solvent free

Estimating data

Polycoat CFM is normally applied at 1.6 – 2.1 kg/m². This corresponds to a thickness of approx. 1.5 – 2.0 mm.

Application

Surface Preparation

The substrates to be coated have to be firm, dry and loadbearing, free of loose and brittle particles as well as substances which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants. Pretreatment of the substrate by grit or shot blasting, highpressure water jetting, grinding or scarifying is only necessary when the primer or scratch primer is very dirty or, when the re-coating interval has been exceeded. After pre-treatment of the substrate the bond strength of the substrate must be at least 1.5 MPa. The temperature of the substrate must be at least 3°C above the current dew point temperature.

The substrate to be coated must be protected against rising damp (back pressure), if required.

Polycoat CFM can only be applied by means of a suitable two component spray machine. The choice of machine depends to a large extent on the type and size of work contemplated. For advice, please contact your local Nivapol technical representative. Polycoat CFM should only be applied to properly prepared substrates.

Polycoat CFM is available with the Part A coloured and the Part B unpigmented. This results in a uniform grey colour of the sprayed material thus giving the sprayer a visual control of the quality of the mixing as machine faults become immediately obvious. This can reduce costly clean up time and material wastage. Due to the fast reaction it is possible to rapidly build thicknesses from 1.0 to > 6 mm.

Surrounding areas should be protected from overspray by masking off with e.g. polyethylene sheet or paper. Care should be taken to prevent spray mist being carried by wind by erecting suitable barriers. Polycoat CFM should be applied within the recommended temperature and relative humidity

limits. The temperature of the substrate should be min. 3°C above the dew point.

Primer

Ensure primer has cured to a 'tack-free' state prior to the application of Polycoat CFM. Use the following guide to select the appropriate primer:

Substrate	Primer
Concrete	Standard EP Primer

Other substrates	Contact your local Nivapol technical representative
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Standards compliance

BD49/99 (waterproofing of concrete bridge decks)
ASTM C957 / C957M
ASTM C836 / C836M

Top Coats and Wear Coats

Polycoat CFM does not have sufficient UV and weather resistance to be used in permanently exposed applications without protection. A number of top coats and wear coats are available which can be broadcast with dry silica sand to provide a hard wearing, non-slip surface. Other top coats may be more suitable for specific applications, contact your local Nivapol representative office for details. Note: if rain falls or dew occurs on the surface of Polycoat CFM then the membrane must be dried and the primer applied prior to the application of any wear coat or top coat (even if the re-coat interval has not been exceeded). In the tropics any exposed Polycoat CFM must be treated as above if left overnight.

Contact details

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Post application Quality Control

1. Adhesion test
2. Thickness control test
3. Visual test for pinholes and blisters

Packaging

Nivapol Polycoat CFM is supplied in 200 L metaldrums or 1000 L IBC containers.

Shelf life

Minimum 12 months stored in original containers under dry conditions at a temperature between 15-25°C. Do not expose to direct sunlight.

Important

When switching products it is essential to fully empty the machine tanks before filling with the new product.

Precautions

EU Regulation 2004/42 (Decopaint Guideline)

This product conforms to the EU directive 2004/42/EG (Deco-Paint directive) and contains less than the maximum allowable VOC limit (Stage 2, 2010) According to the EU directive 2004/42, the maximum allowable VOC content for the Product Category IIA / j is 500 g/l (Limit: Stage 2, 2010). The VOC content for Polycoat CFM is < 500 g/l (for the ready to use product).

Warnings and precautions

Wear safety gloves, goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye contact, seek medical attention. Avoid inhalation of the fumes. Respiratory protection must be worn when spraying or when in the vicinity of the spraying operation. When working well ventilated areas combined charcoal filter and particle filter masks (A-P2) should be worn. When working in less well ventilated and in confined spaces, air-fed helmets are to be worn by sprayer and assistant(s). When working with the product do not eat, smoke or work near a naked flame. The regulations of the local trade

association and/or other authorities, regulating safety and hygiene of workers handling polyurethane and isocyanates must be followed. For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Material Safety Data Sheet (MSDS) from our office or our website.

Quality Assurance

The Nivapol Polycoat CFM system is backed by the unique Quality Assurance Programme and on-site technical support supplied by Nivapol.

Contact details

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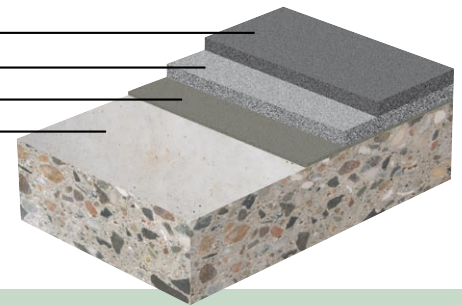
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Nivapol Polycoat CFM

Nivapol Polycoat tackcoat (if required)
Nivapol Polycoat CFM 1. coat membrane
Concrete or Steel Primer
Concrete



Technical data

Mixing ratio A:B

Density at 23°C

Viscosity at 20°C

Gel time at 23°C (hand mixed)

Fully cured at 23°C

Substrate temperature

Max. relative humidity

By weight 100 : 30 By volume 100 : 25

Part A 1.04 g/cm³ Part B 1.23 g/cm³

Part A 8000 mPas Part B 60 mPas

45 min.

2 days

Min. 5°C Max. 60°C

Max. 85%

Technical data cured material (sprayed film except where stated)

Data

Thickness

Shore A hardness (sprayed)

Tensile strength

Elongation

Crack Bridging ability

Temperature resistance

Waterpenetration

Chemical resistance

Tear strength

Puncture resistance

Adhesion to concrete

Methods

DIN 53504

DIN 53504

See separate datasheet

DIN 53515

ASTM E154

BS/EN 24614

Result

Min. 1.5 mm

80 After 28 days

8 N/mm²

400%

Min. 2 mm

Max 90°C

Impervious

16 N/mm

Min. 175 KGF

Complies

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