

CONIFLOOR 431 AS

Two part EP structure coating, conductive, total solid, hard, antistatic accord. to EN 1081 u. EN 61340-4-1 for textured coatings

Product description

CONIFLOOR 431 AS is a two component, solvent free, structured, pigmented, hard and resistant epoxy coating.

Fields of application

CONIFLOOR 431 AS is used as a coating on mineral, primed (with CONIFLOOR 110 or 116 LE) and with conductive primer CONIFLOOR 150 prepared substrates for indoor floorings with medium to heavy mechanical strain, where anti-static properties are required. CONIFLOOR 431 AS is used in our indoor antistatic flooring systems.

Properties

CONIFLOOR 431 AS exhibits high mechanical properties, resistant to abrasion and is easy to apply.

CONIFLOOR 431 AS fulfils the requirements for explosion protection in the AS system build-up. The resistance to earth measured according to DIN EN 1081 is in the range of 10^4 to 10^6 ohms or according to EN 61340-4-1 $\leq 10^9$ ohms.

CONIFLOOR 431 AS is easy to clean and resistant to water, sea and wastewater, a variety of alkaline substances, diluted acids, brine, mineral oils, lubricants and fuels.

The yellowing, which occurs when CONIFLOOR 431 AS is exposed to UV light, does not affect its mechanical properties.

CONIFLOOR 431 AS is used in the systems

- CONIFLOOR IET AS

Technical Data

Mixing ratio	in parts by weight			100 : 16
Density	mix,	at 23 °C	g/cm ³	1.49
Viscosity	mix,	at 23 °C	mPas	thixotropic
Processing time	at 12 °C			min. approx. 35
Re-coating interval / ready for foot traffic	at 20 °C			minimum h 14
				maximum h 36
Substrate and application temperature	minimum		°C	10
	maximum		°C	30
Permissible relative humidity	maximum		%	75
Ready for	mech. strain	at 20 °C	d	3
	light mech. strain	at 20 °C	d	1
	chem. strain	at 20 °C	d	7
Shore D hardness	after 28 d			81
Resistance to ground (EN 1081)				Ohm R _g 10 ⁴ - 10 ⁶
Resistance to ground (EN 61340-4-1)				Ohm R _g < 10 ⁹

Above figures are guide values and should not be used as a base for specifications!

Application method

CONIFLOOR 431 AS is supplied in the correct proportions of component A (resin) and component B (hardener). Pour component B into component A and ensure that the pail containing component B is emptied completely.

To achieve a homogenous mix, thoroughly mix with a slowly rotating mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. The mixing process takes at least 2-3 minutes and should be performed until the blend is homogenous and streak free.

Pour the mix into another clean pail and mix it again for min. 2 additional minutes.

The temperature of the components should be between 15-25 °C.

CONIFLOOR 431 AS can then be applied directly to the pre-treated substrate.

CONIFLOOR 431 AS is applied using a notched squeegee or scraper or a notched trowel and at the end finished with a structure roller "coarse" in one direction.

The ambient and substrate temperature influences working life and curing time of CONIFLOOR 431 AS. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, re-coating interval and open time. High temperature and humidity accelerate chemical reactions so the contrary is true.

To fully cure the material, the substrate and working temperature must not fall below the minimum.

After application, the material should be protected from direct contact with water for approx. 24 hours (at min. 15 °C). Within this period, contact with water can cause white discoloration and carbamate formation on the surface of the coating.

The relative humidity level may not exceed 75%.

Consumption

The consumption rate of CONIFLOOR 431 AS is min. 600 g/m² up to max. 800 g/m².

Information to the Slip resistance:

If a higher slip resistance class is required, it is possible to fill in 10% in parts by weight of silicon carbide, size 425 – 600 µm. The total consumption of the coating as mentioned before. For details, see the available test report.

Note for checking the conductivity:

To check the conductivity, the guideline values actual state of the art report "Conductive coatings for industrial floors" Deutsche Bauchemie e.V. recommended. Note: Before applying the conductive coating, the CONIFLOOR 150 conductive layer must be measured.

Surface of coating system	Amount of measurements
< 10 m ²	1 measurement / m ²
10 – 100 m ²	10 – 20 measurements
> 100 m ²	10 measurements / 100 m ²

Distance of the measuring points at least 50 cm. Measured e.g. with a MetrISO 2000 or 3000 measuring device. The measured value of the conductive layer should not exceed 10-15 kOhm. If the required measured value is not reached, further measurements must be done within 50 cm, which should then reach the measured value.

Cleaning agent

Re-usable tools should be cleaned carefully with CLEANER 44 or e.g. isopropanol.

Substrate condition

Cement bound substrates to be coated must be firm, dry, load bearing and free of loose and brittle particles and substances, which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants.

A pre-treatment of the substrate by grit or shot blasting, high-pressure water jetting, grinding or scabbing including the necessary post-treatment is mandatory.

After the pre-treatment, the bond strength of the concrete must be at least 1.5 N/mm².

The moisture level must not exceed 4 %.

The temperature of the substrate must be at least 3°C above the current dew point temperature.

The sub base must contain a moisture barrier (damp proof membrane D.P.M.).

After the pre-treatment, the bond strength of the concrete must be at least 1.5 N/mm².

Pack size

CONIFLOOR 431 AS is supplied in 25 kg (metal) working packs. Components A and B are supplied in the correct proportions and delivered separately.

Colour

Colours upon request.

Storage

Store in unopened pails under dry conditions at a temperature range of 5-25 °C.

Do not expose to direct sunlight.

Before use, please see "best before" date on the pail / drum.

Safety precautions

CONIFLOOR 431 AS is non-hazardous in its cured condition.

For protective measures, transport regulations and waste management please refer to the Material Safety Data Sheet of the product.

VOC contents

CONIFLOOR 431 AS meets the requirements of the EC directive 2004/42/EC.



CE-Label:

See Declaration of Performance.

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