

CONIFLOOR EP 431 AS (old CONIFLOOR 431 AS)

Two-part EP structure coating, conductive, hard, antistatic accord. to EN 1081 and EN 61340-4-1, structured surface, (total solid)

Product description

CONIFLOOR EP 431 AS is a two component, [structured](#), [pigmented](#), [hard](#) and wear resistant, [conductive](#) epoxy coating. "Total Solid accord. to the test methods Deutsche Bauchemie e.V."

Fields of application

CONIFLOOR EP 431 AS is used as a [structured coating](#) on mineral, primed (with CONIFLOOR EP 110, EP 112 N or EP 116 LE) and with conductive primer CONIFLOOR EP 150 prepared substrates for indoor floorings with medium to heavy mechanical strain, where [anti-static properties are required](#). CONIFLOOR EP 431 AS is used in our indoor antistatic flooring systems.

Properties

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

CONIFLOOR EP 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 EP 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 EP 431 AS is exposed to UV light, does not affect its mechanical properties.

CONIFLOOR EP 431 AS is used in the systems

- CONIFLOOR IET AS
- CONIFLOOR IET AS-SR
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Technical Data

Mixing ratio	in parts by weight (see label comp. B)			100 : 16,7
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

Please also [note](#) the [information in our general processing guidelines](#).

CONIFLOOR EP 431 AS is supplied in the correct proportions of component A (resin) and component B (hardener). Before mixing, the A component must be stirred up by machine, then the B component is poured into the container of the A component and ensure that the pail containing component B is [emptied](#) completely.

NOTE:

The CONIFLOOR EP 431 AS uses the A component of the CONIFLOOR EP 431 standard coating, only the B component is equipped with the conductive additive.

The set consists of

CONIFLOOR EP 431 component A (21.5 kg)
CONIFLOOR EP 431 AS component B. (3.6 kg)

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 EP 431 AS can then be applied directly to the pre-treated substrate. CONIFLOOR EP 431 AS is applied using a notched squeegee or scraper or a notched trowel (**rubber preferred**) and at the end finished with a structure roller "middle" or "coarse" in one direction.

The ambient and substrate temperature influences working life and curing time of CONIFLOOR EP 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. 20°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 EP 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 in **CONIFLOOR IET AS**, 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.

In the **CONIFLOOR IET AS-SR** system, silicon carbide with grain size F40 = 355-500 µm can be added at 18-25 %. The total order quantity remains unchanged. More detailed information can be found in the test report or the system data sheet.

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 EP 150 conductive layer must be measured.](#)

Surface of coating system	Number of measurements
< 10 m²	1 measurement / m²
10 – 100 m²	10 – 20 measurements
> 100 m²	10 measurements / 100 m²

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 45 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 subbase must contain a moisture barrier (damp proof membrane D.P.M.).

CONIFLOOR EP 431 AS is applied on the pre-treated and with CONIFLOOR EP 110, EP 112 or EP 116 LE primed sub-base. Then apply the conductive primer CONIFLOOR EP 150 and at least conductive the self-levelling coating CONIFLOOR EP 431 AS.

If the surface roughness is $\geq 0.5\text{mm}$, an additional levelling layer with CONIFLOOR EP 110, EP 112 or EP 116LE must be taken into account which is not sprinkled with QS. The recoating time of CONIFLOOR EP 110, EP 112 or EP 116LE must be considered.

As for the rest the sections of the requirements concerning substrates to be coated shown in the according guidelines apply.

Pack size

CONIFLOOR EP 431 AS is supplied in 25,1 kg (metal) working packs. Components A and B are supplied in the correct proportions and delivered separately.

The set consists of

CONIFLOOR EP 431 component A
CONIFLOOR EP 431 AS component B.

Colour

Standard colours: ca. RAL 7032 (grey) further colours upon request.

Please take into account that [due to the conductive surcharges there are colour differences to the standard product](#) which are not a defect.

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

The limit value for products ready for use (product type according to table IIA j Type sb) is:

Level II (from 2010) <500 g/l VOC.

When ready to use, this product contains less than 500 g/l VOC.



CE and UKCA marking:

See Declaration of Performance

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