CONIFLOOR 433 ESD

Two part EP structure coating, conductive, total solid, hard, antistatic accord. to EN 61340-4-1, 4-5 and 5-1 for textured ESD coatings

Material description
CONIFLOOR 433 ESD is a coloured, two component, ESD compliant floor coating based on liquid epoxy resin, which has a smooth, textured orange peel finish.

Areas of application
CONIFLOOR 433 ESD is used as a structural coating on cementitious substrates in order to fulfil ESD requirements. The substrate is primed with CONIFLOOR 110 or 116LE however; there is **no** requirement for any additional **conductive primer layer.** Copper strand tape should be installed underneath the CONIFLOOR 433 ESD and connected to earthing points at maximum distance between each copper tapeline of 8-10 m.
CONIFLOOR 433 ESD is intended for use in indoor areas with light to medium mechanical stress.
CONIFLOOR 433 ESD is also suitable as an over coating to refresh existing epoxy resin coatings.

Attributes
CONIFLOOR 433 ESD is characterised by its mechanical strength and good abrasion resistance after curing.

CONIFLOOR 433 ESD AS fulfils the requirements for EPA (ESD protected areas). The resistance to earth measured according to EN 61340-4-1 is < 10^9 ohms, the resistance (footwear-person-floor) accord. to EN 61340-4-5 is ≤ 10^9 ohms and the body voltage by walking test accord. to EN 61340-4-5 is < 100 volt.

CONIFLOOR 433 ESD is resistant to water, seawater, wastewater, mineral oils, lubricants and fuels as well as a variety of alkalis, diluted acids and salt solutions.

Yellowing which may be noticeable due to UV exposure does not affect the mechanical and technical properties.

CONIFLOOR 433 ESD is used in the system

- CONIFLOOR IET ESD

or other systems.

Technical data

Mix Ratio	Parts by weight A: B		4: 1
Density	Mixture, at 23 °C	g/cm³	1.39
Viscosity	Mixture, at 23 °C	mPas	thixotropic
Working Time	at 23 °C	min.	30
Recoating Interval	at 23 °C at 23 °C	min. h max. h	14 36
Application Temperature	minimum maximum	°C °C	10 30
Permissible Relative Humidity	maximum	%	75
Shore D hardness	after 28 d		80
Resistance to ground (EN 61340-4-1)		Ohm	min. R_g < 10^9
Resistance system (EN 61340-4-5)		Ohm	min. R_s < 10^9
Body voltage / walking test (EN 61340-4-5)		Volt	< 100

These figures are approximate values. The values are not to be used to create specifications!

Application instructions

Pour the entire contents of the B-component into the A-component container. Ensure that the B-component is emptied out completely, and carefully scrape out the container with a spatula.

In order to achieve a homogeneous consistency and ensure complete mixing, A and B components must be thoroughly mixed with a slow-speed drill and paddle at approx. 300 rpm. Take care to cover the bottom and sides of the mixing vessel.

Mixing should be carried out for approx. 2-3 minutes to obtain a homogeneous and streak-free consistency.

Transfer the mix to a second, clean container and mix again for another two minutes to ensure complete mixing of the thixotropic material.

The temperature of the components during the mixing process should be between 15 and 25°C.

The mixed material should be applied immediately. CONIFLOOR 433 ESD should be applied to the prepared and primed substrate using a notched trowel or a toothed rake with metal or rubber teeth, (e.g. Multitool A3 tooth size).

After application, the coating is rolled in one direction with an open celled foam textured roller making sure that an even and consistent surface profile is achieved.

Both the application time of CONIFLOOR 433 ESD and the curing of the flooring are essentially determined by the temperature of the material, substrate and the environment. At low temperatures, the chemical reactions are generally delayed; this also extends the pot life, traffic and recoating times. Conversely, at high temperatures, chemical reactions are accelerated so that the above times are shortened accordingly.

To ensure complete curing of CONIFLOOR 433 ESD, the average temperature of the substrate must not fall below the lowest recommended application temperature.

Following application, the material must be protected from direct contact with water for at least 24 hours (min. 15°C). During this time, the effect of water on the surface can lead to white discolouration and carbamate formation on the coating.
The relative humidity must not exceed 75 %.

Required amount and layer thickness

Depending on the temperature of the material and substrate, the required amount is at least approx. 500 g/m^2 to max. 700 g/m^2.

Note: If the max. required amount is substantially exceeded, restructuring of the CONIFLOOR 433 ESD thixotropic coating may be required by re-rolling with the textured roller.

Should additional slip resistance of the CONIFLOOR 433 ESD be required (as in the CONIFLOOR IET ESD system), the addition of silicon carbide of grain size F36 = 425-600 µm at 10 % by weight into the coating material is possible. The total application quantity will remain unchanged.

Cleaning agent

On completion of work and in the event of work interruptions, all tools intended to be used again must be cleaned with SOLVENT 44 or equivalent, e.g., isopropanol.

Substrate condition

Cementitious substrates must be sound, dry, finely roughened and load-bearing; they should be free from laitance, loose and crumbly areas, as well as substances which impair adhesion such as oil, grease, rubber abrasion, paint residues or similar.

The substrate should be mechanically prepared, preferably by encapsulated dust-free shot blasting; and if required, by milling and subsequent shot blasting or grinding followed by a final vacuuming of the surface to be coated.

The substrate to be coated must have an average bond strength of at least 1.5 N/mm^2 (check, e.g., with Herion equipment, pulling speed 100 N/s).

Any residual moisture in the substrate must not exceed 4 %.

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

The substrate to be coated must be protected against rising humidity (water vapour pressure) by means of a suitably intact DPM.

CONIFLOOR 433 ESD is applied to the previously prepared and primed substrate.

If the surface roughness is $\geq$ 0.5 mm, an additional levelling layer or scratch coat using CONIFLOOR 110 should be applied, taking care to observe the recoating interval.

The above substrate condition requirements prior to the application of the coating also apply.

Packaging

CONIFLOOR 433 ESD is supplied in 25 kg units comprising of separate A and B components filled at a specific mixing ratio in metal pails.

Colours

RAL 7038, others on request

Storage

Well-sealed original containers must be stored in a dry place between 15 and 25 °C.

Avoid direct sunlight and temperatures below the storage temperature.

Before use, check the best before date stated on the containers.

HEALTH AND SAFETY

When cured, CONIFLOOR 433 ESD is physiologically harmless.

Personal protective equipment (PPE) measures required during application as well as transport regulations and disposal instructions are available from the safety data sheets of the product, which are available on request.

VOC content:

CONIFLOOR 433 ESD meets the requirements of EU Directive 2004/42/EC.

Hazard information
GIS-CODE: RE1
Ordinance on Hazardous Substances: subject to labelling

CE

CE marking:

See Declaration of Performance

CONICA AG
Industriestrasse 26
8207 Schaffhausen
Switzerland

Tel.: + 41 52 644 3600
Fax: + 41 52 644 3699
info@conica.com
www.conica.com