CONIFLOOR IET ESD – system set up

ESD compliant industrial floor coating based on epoxy resin with smooth, textured surface.

Application

Production and warehouse areas, assembly areas and laboratories, where ESD requirements have to be met

System design

		Product	Required amount	Application	Remarks
Primer	Concrete, cement screed	**CONIFLOOR 110**	0.3-0.5 kg/m²	Roller/ Brush	Residual moisture of concrete ≤ 4%
Scratch coat	Optional	**CONIFLOOR 110** Filled with oven dried quartz sand grain size 0.1 – 0.3 mm	0.6 – 1.0 kg/m²	Trowel/ Squeegee	Scratch coat recommended for roughness exceeding depth of ≥ 0.5 mm. Mix ratio of Resin: Quartz sand = 1: 0.5 – 1 by weight dependant on layer thickness and substrate temperature. Do not broadcast
Earthing		**Copper Tape**		Self-Adhesive	Ensure maximum distance of any point on the floor to earth connection is <10 m..
Top coat		**CONIFLOOR 433 ESD**	0.5 – 0.7 kg/m²	Toothed rake / notched trowel followed by Open cell foam textured roller	

Total thickness of the system < 1 mm
Earth resistance < 10^9 Ohm measured according to DIN EN 61340-4-1
Walking test body voltage < 100 V measured according to DIN EN 61340-4-5
In the human-shoe-floor system: < 3.5 x 10^7 Ohm measured according to DIN EN 61340-4-5

CE

CE marking:
See Declaration of Performance

Substrate condition

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.

Application

Primer

Apply CONIFLOOR 110 to the prepared substrate by roller, spraying or spreading with a squeegee. After waiting for at least 10 minutes, finish with a roller. Ponding or spots where the primer is applied thick should be avoided.

The required amount of CONIFLOOR 110 as primer is approx. 0.3 - 0.5 kg/m^2, depending on site and substrate conditions.

A second application of 0.2 - 0.4 kg/m^2 CONIFLOOR 110 may be necessary to ensure that the pores and capillaries are completely filled.

For surface roughness ≥0.5 mm, a scratch or levelling coat should also be applied. Please refer to the technical data sheet for CONIFLOOR 110.

The primer or scratch/levelling coat should be left smooth and not broadcast with quartz. Recoating intervals should be respected.

Earthing:

Earthing points are formed using self-adhesive conductive copper tape applied directly onto the CONIFLOOR 110. The distance between any point on the floor and earth connection should not exceed 10 m.
When measuring and checking the resistance to the next possible earthing point, the maximum distance is approx. 8 to 10 m.

Establishing the earthing connection:

The earthing connection must be made by a suitably qualified electrician, who must check it before using the electrostatically conductive floor.

Conductive top coat

Additional filling with oven dried quartz sand should not be carried out.

The application is performed using a notched trowel or a toothed rake (e.g. Multitool A3 tooth size). Finally, roll with an open cell foam textured roller to obtain an even textured surface.

Questions

If you have any questions, please contact our Technical Service team.

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