TECHNICAL DATASHEET

TITLE

AHEAD EC Levelling Layer

DESCRIPTION

Watertight, diffusion open and thixotropic epoxy-cement
A coating to be applied on ZEBRA Anode, concrete subbase and steel

PRODUCT IMAGE

AHEAD
EC Levelling Layer

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1 Description

AHEAD EC Levelling Layer is a two component, water based, epoxy/cement modified polymer coating for the protection of cured and primed ZEBRA Anode, concrete and ferrous metals.

AHEAD EC Levelling Layer will, when applied on Zebra Anode, act as an alkaline reservoir for the anode and prevent acidification on the concrete subbase and therefore ensure a long lasting anode.

2 Areas of Application

For the ZEBRA system the AHEAD EC Levelling Layer is used over the primed (AHEAD Multiprimer for walls and ceilings, AHEAD Multiprimer Floor for floors) Zebra Anode. After complete curing, AHEAD EC Levelling Layer is resistant to most chemicals and solvents, and has high diffusion resistance to chloride ions and oxygen

3 Preparation

The AHEAD Multiprimer OR AHEAD Multiprimer Floor must be fully cured and kept clean until application of Ahead EC Levelling Layer.

4 Priming

The prepared concrete substrate should be thoroughly sealed with AHEAD Multiprimer or AHEAD Multiprimer Floor. If subbase is ZEBRA Anode the priming must occur less than 24 hours before AHEAD EC Levelling Layer is applied.

5 Mixing

Pour the contents marked Part A (liquid) into a suitable mixing vessel. Slowly add Part B (powder) and mix for a minimum of 5 minutes until homogeneous. The modules must be mechanically mixed using a drill and paddle specially designed to entrap as little air as possible. Do not spill content.

6 Application

Cover ZEBRA Anode with 1 mm coat by squeezer, brush, float or spray to all areas ensuring all surface is fully embedded.

7 Curing

Normal procedures relating to curing of cementitious products should be strictly adhered to. It is important that the surface of the coating is protected from strong sunlight and drying winds. If overcoating with AHEAD Ax/ECH allow a minimum of 24 hours / 15 °C curing of the Ahead EC Levelling Layer before priming it again, and proceed with the AHEAD Ax/ECH.

8 Cleaning and storage

All tools should be cleaned with water immediately after use.

Store in dry, frost free conditions at moderate temperatures not greater than 20 °C. Shelf life is 12 months.

Do not use Part A if it has frozen.

9 Technical Specification

Base	Cement and epoxy modified, styrene acrylic copolymer
Mixed colour	grey
Mixed density	1850 kg / m^3
Application thickness	2 mm in 1 ... 2 coats
Min. application temperature	5 °C
Max. application temperature	35 °C
Working life	30 minutes at 20 °C
Drying Time	2 ... 3 hours
No. of coats required on ZEBRA	Normally one coat at 1 mm thickness or less

Mechanical Characteristics (typical)

Compressive Strength 1 day 7 days 28 days	BS 4551 tested at 20 °C 5 ... 10 MPa (N/mm^2) 30 ... 40 MPa (N/mm^2) 50 ... 60 MPa (N/mm^2)
Flexural Strength 28 days	BS 4551 tested at 20 °C 11 ... 14 MPa (N/mm^2)
Adhesive Strength Concrete Steel	 2 MPa (N/mm^2) 3 MPa (N/mm^2)
Water Permeability Coefficient	11.43 x 10 ... 17 m/sec. i.e. (DIN 1048 Part 1), 2 mm AHEAD Levelling Layer = 6000 mm of typical concrete.
Oxygen Diffusion Coefficient	D_{O2} = 4.42 x $10^{-5}cm^2s^{-1}$ (Taywood Test)

No steady state of flux of chloride ions after a test period of over 15 years.

Compressive strength	≥ 50 MPa
Adhesive Strength	≥ 2.0 MPa
Water vapour permeability	< 5 m
Permeability to CO_2	Equivalent to 100 mm of concrete
Reaction to fire	Euroclass A2-s1, d0

Pack size	30 kg. Consisting of 25 kg dry + 5 kg wet packs
Yield	16.2 litres per 30 kg pack
Coverage	8.1 m^2 at 2 mm thickness per 30 kg

10 Safety instructions

Only to be applied by approved personnel.

Always use proper personal protective equipment.

11 Annotation

Important Note! Experience has shown that condensation can form on surfaces treated with AHEAD EC Levelling Layer particularly in cold conditions which will cause a darkening and may retard the setting. Although the AHEAD EC Levelling Layer can be applied to damp substrates care must be taken to remove standing water.