



ZEBRA Anode - Conductive Paint

ZEBRA Anode is a patented, 2-component, mineralic conductive paint specially designed for use as a long-lasting anode in the ZEBRA system for Cathodic Protection (CP) of steel in concrete. ZEBRA Anode is part of the ZEBRA system and the ones installing it are required to complete a training program.

Application

The ZEBRA Anode, sealed with AHEAD Multiprimer or AHEAD Multiprimer Floor is designed for use on car-parks, top of decks, slabs, columns, balconies, beams and soffits. Different areas of application requires different pre- and post-treatments in order to be a long lasting cathodic protection system.

Preparation

The concrete must be dry, free from paint, grease, oil, fat and other impurities. It must be suitable for the ZEBRA Anode to react with and adhere to. This is normally achieved by blast treatment, grinding or sandblasting the concrete subbase, if needed followed by removal of oil and grease. Concrete repairs must be properly executed and left to cure for specified time. Repair concrete must always be of “current open” types. It is strongly recommended to establish test fields of ZEBRA Anode and following layers on both undamaged concrete and repaired concrete. Test fields are made to check anode adhesion and anode coating thickness (measured by electrical resistance). The ZEBRA Anode shall be fully hardened before application of AHEAD Multiprimer or AHEAD Multiprimer Floor and wearing courses. If not, the resistivity will be too high, and the adhesion to low. In cases where hardening does not progress satisfactorily, the relative humidity in the environment needs to be reduced.

Mixing

- A-comp: 7.3 kg
- B-comp: 2.7 kg
- Total weight: 10 kg

Mix component B with component A for approximately 3 minutes with a powerful hand-held mixer. If needed, continue mixing until the product is completely homogenous and without lumps. As soon as the mixing is complete the curing will start.

Application

Apply with a roller or airless spray in ONE coat.

The optimal consumption is 0.30 to 0.35 kg/pr. m²

Min. temp 10°C on concrete surface

Max. temp 30°C on concrete surface

Pot Life

After mixing, 1 hour at 25 °C

Curing

Touch dry at 25 °C: after approx. 30 min.

Drying time before further covering: 2 ... 7 days.

Full strength is achieved after 14 days, dependent on temperature and relative humidity.

Cleaning and storage

Rinse all used tools with freshwater before the Anode paint dries.

ZEBRA Anode paint is water-soluble when wet, but not when dried and cured.

ZEBRA Anode paint must be stored frost free.

Shelf life is 12 months for both components.

Properties

The ZEBRA Anode material is based upon silicate technology combined with additives and catalysts to ensure stable and longtime functionality as a CP anode. It maintains anode stability which gives effective, long term corrosion protection of the embedded steel. When protected by AHEAD EC components, the alkalinity level in the components within EC protection materials contributes to an increased alkalinity at the anode-concrete interface and to reduced electrical transfer resistance towards the concrete, and to reduce acidification over time. The ZEBRA Anode and its protection materials will ensure a good initial adhesion, and under correct usage operate trouble free for years to come.

Adhesion and resistivity should be checked and approved by the supervisor, prior to the main application. Color of the anode is dark gray.

Safety Instructions

Always use proper personal protective equipment.

Take care of proper ventilation during the installation.

Specifications

Cassette

COMPONENT A	Special silicate with additives
COMPONENT B	Alkaline Mg-carbonate
PIGMENT	Graphite
DENSITY	Approx: 1.33 kg/dm ³
NO. OF LAYERS	1
SOLID CONTENT	41 % by weight
MATERIAL PER M ²	0.35 kg/m ² of concrete surface (structure dependent)
DRY LAYER THICKNESS	Approx. 150 microns
ADHESION STRENGTH	> 1 N/mm ² , after full curing on good concrete
ELECTRICAL RESISTIVITY	< 1 Ohm cm (after 4 days)
APPROX. PIN-PIN RESISTIVITY	< 100 Ohm
SHEET RESISTANCE	< 50 Ohm square
MAX. VOLTAGE	2.5 V or less normally sufficient, limited by acidification of concrete sub base
MAX. CURRENT DENSITY	20 mA/m ²

Annotation

HS export code: 3209 9000