

RebaGuard™ Plus



Technical Datasheet

Description

RebaGuard Plus is a discrete sacrificial anode applied to reinforcing steel in concrete patch repairs resulting from attack by chloride salts.

Many reinforced concrete structures suffer attack by chloride salts and carbon dioxide resulting in expansive reinforcement corrosion and spalling damage. Local concrete repairs often lead to further incipient corrosion damage. Although the fresh mortar in patch repairs offers a passive environment for the steel within, it does not deal with chloride contaminated concrete outside the patch repair. This leads to further corrosion damage at the periphery of the repair. RebaGuard anodes corrode preferentially to the surrounding steel protecting it from further corrosion damage.

Features

- Simple, unit design
- Large charge capacity <250 kc*
- Targeted Application

Advantages

- Rapid installation method
- No long term maintenance
- Simple installation
- Suitable for all rebar sizes

Product Data

Packaging: 25 units per box.

Storage: Store dry. Do not allow contact with Oxidizing materials

Unit size: 70 mm x 60 mm x 35 mm



Application

Application shall be in accordance with the 'Installation Guidelines' and is summarised as follows:

RebaGuard Plus anodes are typically applied at a density of 2-9 units/sqm concrete surface, at a spacing of 250-500mm between anodes.

RebaGuard Ultra anodes are typically installed at the edge of concrete repairs or in new structures as a preventative measure.

The individual RebaGuard Plus units are applied to reinforcing bars at the edges of the patch repair or spaced regularly along the rebar in new construction, as detailed in the design. The units are attached parallel or beneath the rebar using the connectors provided.

Electrical continuity between the RebaGuard Plus anode Conductors and the reinforcing steel shall be confirmed. The repair shall be reinstated ensuring that the RebaGuard Plus units are fully encased in the repair mortar.

The RebaGuard Plus anode installation can be monitored using half-cell potential mapping and current outputs.

Ancillary Material

The following ancillary materials are also available from CPT Ltd;

- PatchGuard and PatchGuard Plus
- Manganese dioxide reference electrode
- Monitoring equipment



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Limitations

In order that suitable current flow and lifetime can be achieved from the RebaGuard Plus anode, certain practical considerations should be taken into account.

The patch repair material cover for the RebaGuard Plus unit must be a minimum depth of 20mm.

Any discontinuous steel should be either electrically bonded to, or electrically isolated from the system negative.

Any cracks or delaminations in the concrete which affect ionic current flow should be pre-treated.

The time to achieve passivity will be dependent on site conditions. Depolarisation of treated steel will be slower in moist conditions.

Specification Clause

The discrete anode shall be RebaGuard Plus, a sacrificial alloy anode, surrounded by an activating mortar, which has a minimum charge capacity of 250kc per unit, with an integral electrical conductor for connection to the rebar.

Health and Safety

Protective clothing must be worn. Wear gloves and eye protection at all times.

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