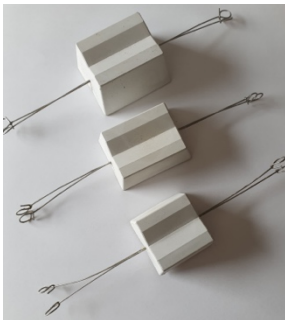
TECHNICAL DATASHEET

RebaGuard™

A discrete sacrificial anode which acts to prevent corrosion of reinforcing steel in concrete.



Use

RebaGuard is a discrete sacrificial anode for new build and repair applications. When attached to the reinforcement the RebaGuard anode will corrode preferentially to the surrounding steel and mitigate the risk of corrosion initiation.

Advantages

- Fixes directly to steel reinforcement
- Large charge capacity
- Suitable for new build and refurb applications
- Combats the incipient anode/ring anode effect
- MCHW specification clause 5712 Type 1a compliant
- Integral corrosion resistant tie wires
- No long term maintenance
- Rapid installation
- Suitable for all rebar sizes

Description

RebaGuard is a discrete sacrificial anode applied to reinforcing steel in new structures, re-cast structural elements and concrete patch repairs to existing structures. Many reinforced concrete structures suffer attack by chloride salts and carbon dioxide resulting in expansive reinforcement corrosion and spalling damage. New-build structures in aggressive environments may be particularly vulnerable. For existing structures, local concrete repairs often lead to incipient corrosion damage also known as the halo, or ring anode, effect. Although the fresh mortar in patch repairs offers a passive environment for the steel within, it does not deal with contaminated concrete outside the patch repair. This can lead to further corrosion damage at the periphery of the repair. RebaGuard anodes corrode preferentially to the surrounding steel, within the zone of influence, mitigating the risk of rebar corrosion initiation.

Properties

Product	Size Length x Width x Depth	Zinc Weight
RebaGuard	55mm x 55mm x 35mm (2 3/16" x 2 3/16" x 1 3/8")	60g
RebaGuard Plus	70mm x 55mm x 35mm (2 ¾" x 2 3/16" x 1 3/8")	108g
RebaGuard Ultra	70mm x 60mm x 45mm (2 ¾" x 2 3/8" x 1 ¾")	180g

Application

The spacing between RebaGuard anodes is typically 400mm - 500mm (16” - 20”) and will depend on local conditions and steel density. RebaGuard anodes are pre-soaked and attached to the reinforcing cage of new structures prior to the concrete pour or installed at the edge of concrete repairs to existing structures which have previously been broken out and prepared as per national standards. The units are attached parallel or beneath the rebar using the integral corrosion resistant tie wires. Electrical continuity between the RebaGuard anode tie wires and the reinforcing steel shall be confirmed. For patch repair applications where the repair mortar has a resistivity in excess of 15,000 ohm-cm the RebaGuard anodes should be encapsulated in a low resistivity repair material (bridging mortar) to enhance current flow. Concrete shall be poured, or the repair shall be reinstated, ensuring that the RebaGuard units are fully encapsulated.

Limitations

In order that suitable current flow and lifetime can be achieved from the RebaGuard anode, certain practical considerations should be taken into account. For patch repair applications repair material cover for the RebaGuard unit must be a minimum depth of 20mm (3/4”) and a low resistivity bridging mortar shall be used in cases where a high resistivity repair mortar is used, as described in the above application section. Any discontinuous steel should be electrically bonded to ensure continuity.

Packaging

25 Units per pack

Storage

Packs should only be opened when the product is required.

Store dry. Do not allow contact with oxidizing materials

Ancillary Materials

MN15 manganese dioxide reference electrode.

Precautions - Health and Safety

Protective clothing must be worn.

Wear gloves and eye protection at all times.

Specification Clause

The discrete anode shall be RebaGuard, a sacrificial alloy anode, surrounded by an activating mortar, which has a minimum charge capacity of 150 kC per unit, with integral electrical conductors to the rebar.

Technical and Sales Support

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CPA

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