

TECHNICAL DATASHEET

ProtectorJoint 200™



A hybrid/galvanic anode system which acts to control corrosion of reinforcing steel in concrete.



Uses

Protector Joint 200™ is a remedial measure applied to reinforced concrete structures suffering from chloride-induced steel corrosion at joints between structural elements.

Advantages

- Simple, single unit
- Straight-forward installation
- No long term power supply needed
- Large charge capacity > 400 kC
- Long life *
- Specifically designed for application into joints
- Rapid installation
- Targeted protection
- No long term monitoring or maintenance required
- Corrosion resistant titanium fixings
- Responds to local environment
- Cost-effective corrosion control

* Lifetime is dependent on local conditions

Description

ProtectorJoint 200™ is based on the use of a sacrificial metal anode located on the reinforced concrete surface in the narrow gap at a joint in a structure such as an expansion joint or bearing shelf.

The unit utilises a compressed foam which, when released, presses the anode surface onto the concrete surface. The anode is then connected directly to the steel using a titanium connection. The anode will immediately begin to deliver a protective current to the reinforcing steel.

The anode system can be used in galvanic or impressed current modes using a temporary power supply to passivate reinforcing steel.

Standards Compliance

BS EN ISO 12696:2016 cathodic protection of steel in concrete.

Application

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

Prepare the joint to take the ProtectorJoint 200™ by removing any material which is blocking access to the joint and loose material on the concrete surface.

Coat the ProtectorJoint 200™ anode surface with the DuoCrete J activating adhesive, using a spatula.

Locate the unit within the joint at the location identified. Puncture the plastic enclosure to allow the compressed foam to expand and fix the unit in place. Ensure that the sacrificial anode surface is in contact with the concrete surface.

Install further individual ProtectorJoint 200™ units along the joint as required. In order to connect the units in series, couple the titanium wire connection from each anode unit to a titanium feeder wire using the supplied polymeric connectors.

Expose a small section of steel reinforcement within the joint area. Connect the titanium wire from the ProtectorJoint 200™ units to the steel rebar, then encapsulate in concrete repair mortar.

The ProtectorJoint 200™ unit is now delivering current to the steel.

Properties

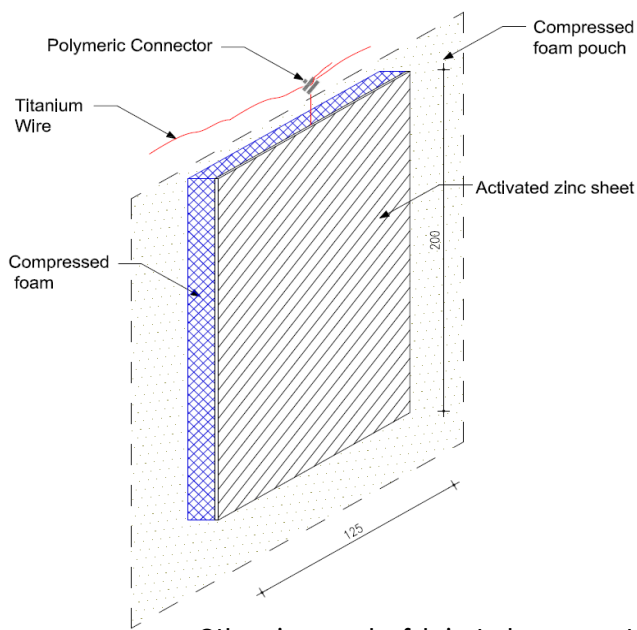
Product dimensions are:

125 x 200 x 8mm (5" x 8" x 5/16")

NOTE: Following expansion product thickness increases to 40mm (1½")

Other sizes can be fabricated on request

ProtectorJoint 200™ Detail



Other sizes can be fabricated on request

Limitations

Any discontinuous steel should be either electrically bonded to, or electrically isolated from, the system negative. Any cracks or delamination in the concrete which affect ionic current flow will affect performance of the ProtectorJoint unit and should be pre-treated. During installation, electrical shorts between the ProtectorJoint anode and other metal components must be avoided.

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

Packaging

10 units per box.

Wire attached ready for install.

Storage

Store dry

Boxes should only be opened when the product is required.

Do not allow contact with oxidizing materials.

The lid of the box should be closed at all times when not in use. Do not remove silica gel.

CPT products have specific guidelines shown clearly on the packaging which **must** be followed to ensure a successful install.

Ancillary Materials

The following ancillary materials are also available from CPT Ltd:

- DuoCrete J activating adhesive
- MN15 Manganese dioxide reference electrodes
- Monitoring equipment

Precautions - Health and Safety

Protective clothing must be worn.

Wear gloves and eye protection at all times.

Design of the ProtectorJoint system should be undertaken by a competent designer.

Specification Clause

The discrete anode shall be an activated zinc alloy sheet with an expandable foam backing and an integral titanium electrical connection which facilitates fixing of the unit to an insulated titanium feeder wire by use of a polymeric screw connector. The zinc sheet shall be bonded to the face of the joint, or gap, using a factory pre-mixed activating adhesive of pH<12.8 which remains pliable for a minimum of 48 hours.

Technical and Sales Support

w: www.cp-tech.co.uk

t: +44 (0) 115 9724 238

e: general@cp-tech.co.uk



For technical and sales support please contact us at:

Concrete Preservation Technologies

1 Palmer Business Court, Manor House Road, Nottingham, UK, NG10 1LZ

(T) +44 (0) 115 9724 238 (E) general@cp-tech.co.uk

www.cp-tech.co.uk