

INSTALLATION GUIDELINES

ProtectorJoint™

cpt



IMPORTANT: This information is for guidance only. Modifications may be required to reflect local site conditions.

Equipment Checklist

Covermeter, concrete breaker, drill, rivet gun (if applicable), tape measure, wire strippers, 12mm (½") ring spanner, caulking gun, multimeter, sharp knife, spatula/roller and appropriate PPE.

Preliminaries

The structure should be assessed prior to application of the ProtectorJoint anode as follows:

Confirm steel continuity in areas to be treated. Measure the electrical resistance between reinforcing bars in mutually remote locations across the joint during concrete repairs or other works. Electrical resistance should meet the acceptance criteria detailed in ISO 12696:2016, clause 7.1.

Installation

1. Clean out joint of debris to allow insertion of the ProtectorJoint anode unit. Check to ensure sufficient gap is available for insertion of the anode unit.



2. Pre-connect the ProtectorJoint anode units to the titanium feeder wire at the design spacing and securely tighten screw connectors using a ring spanner. Twist excess wire from each unit around feeder wire, as shown, to ensure electrical continuity. Measure the electrical resistance between the titanium feeder wire and the individual ProtectorJoint anode units following connection. The resistance shall be less than 0.5 ohm.



3. If units incorporating reference electrodes are used these should be installed within the string of ProtectorJoint units. Note the blue cable from the reference electrode unit in the photograph.



4. Coat the ProtectorJoint anode surface with the DuoCrete J activating adhesive, using a spatula or roller. Do not leave the coated anode units exposed for greater than 30 minutes to avoid drying of the embedment material.



5. The individual anode units are placed into the joint and inserted such that the face of the unit coated in embedment material is in contact with the concrete joint face. The anode units are located such that a gap of 20mm is present between the top of the anode unit and the joint fill material. The titanium feeder wire will be located within the joint below the proposed location of fill material.



6. Puncture the plastic enclosure to allow the compressed foam to expand and fill the joint gap.



7. Make connections to the steel reinforcement at locations identified in the design or as agreed with the engineer. The type of steel connection used will be dependant on the electrical conductor utilised for the negative connection. Measure the current flowing between the steel and the anode string to confirm operation of the system.



8. If monitoring is to be installed, cables from the installed ProtectorJoint anodes, steel and reference electrodes should be joined to multi-core cable using a cable joint kit prior to running to the monitoring enclosure (optional).

Attach the monitoring enclosure in a suitable location where it is not exposed to water and potential vandalism



9. If a flame gun is to be used during re-installation of the joint, then a fire resistant material should be placed on the surface of the anodes/titanium wire.



10. Connect the string of ProtectorJoint anodes either directly to the steel reinforcement or into the monitoring enclosure.

11. If applicable, complete the joint installation as per standard practice.



12. The ProtectorJoint anodes are now in place and delivering current to the steel.



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