



VECTOR CORROSION TECHNOLOGIES

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Summary of Galvashield® Anode Evaluation

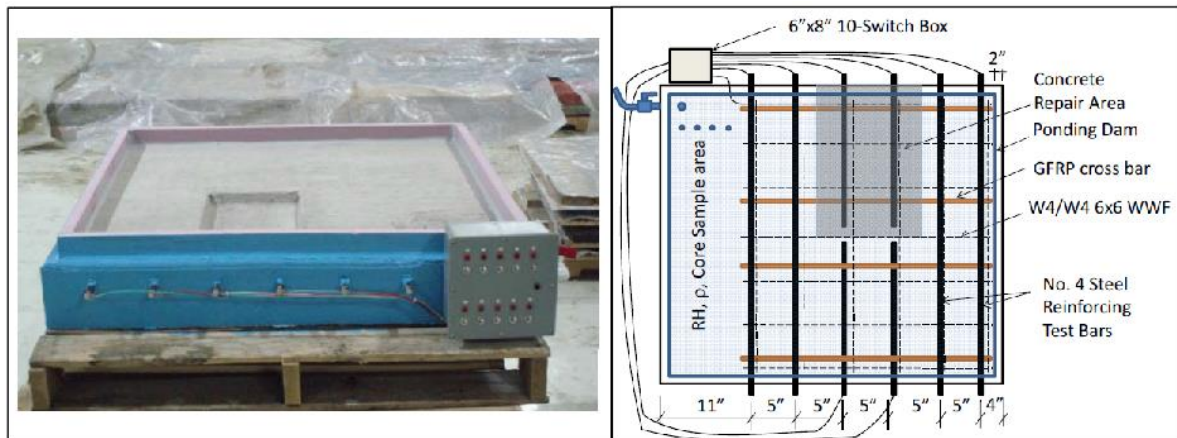
US Bureau of Reclamation Test M82

Standard Protocol to Evaluate the Performance of
Corrosion Mitigation Technologies in Concrete Repairs

The need for a protocol to evaluate repair technologies was outlined in a 2006 report by the Strategic Development Council of ACI: "Vision 2020: A Vision for the Concrete Repair, Protection and Strengthening Industry."

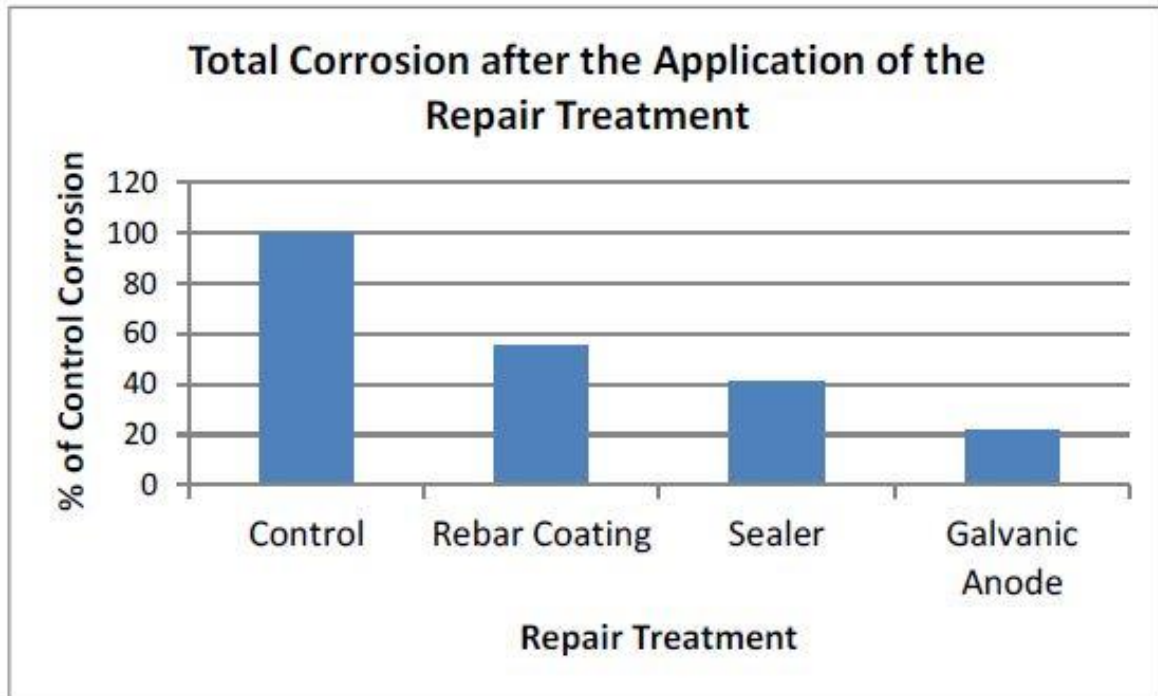
The result of this collaborative effort led to the development of the US Bureau of Reclamation Test M82. The test was designed to measure how various repair methods affect the corrosion rate and durability of concrete structures. Test slabs are constructed such that corrosion can be measured on each reinforcing bar. This allows the total amount of corrosion to be calculated for each slab.

USBR M82 Test Method Configuration for Embedded Galvanic Anode Evaluation



During the development of the protocol, several different repair methods were evaluated. The repair methods evaluated included 1) control slabs (conventional concrete repair), 2) conventional concrete repair with epoxy coated rebar in the repair, 3) conventional concrete repair with one alkali-activated Galvashield Anode in the repair, and 4) conventional concrete repair with 3 coats of 40% solids silane sealer applied over the entire slab after the repairs were completed.

USBR M82 Comparison of Total Corrosion for Various Repair Methods



It is important to note that the testing used only one (1) Galvashield XP Series anode. Vector Corrosion Technologies' anode spacing tables recommends a minimum of two (2) anodes for this size of repair in a slab of this type.

Despite using less than the recommended number of anodes, the lone Galvashield anode had a very positive effect and reduced corrosion in the chloride contaminated slab.

Compared to the control slabs, the alkali-activated Galvashield anode reduced total corrosion by approximately 80%.

To obtain a copy of the 257-page test report, contact your Vector Corrosion Technologies Business Development Manager or Distributor.

We Save Structures™