

## Product Evaluation

### RE: Review of Galvashield XP4 Embedded Galvanic Anodes

#### **PRODUCT**

Galvashield XP4 Embedded Galvanic Anodes are designed to neutralize or slow down new corrosion cells around reinforcing steel in concrete repair work (patching). This product is manufactured and distributed by Vector Corrosion Technologies located in Winnipeg, Manitoba.

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS**

The Galvashield XP range of embedded galvanic anodes are used to mitigate ring anode corrosion when repairing reinforced concrete structures. Designed for optimum performance and ease of installation, the alkali-activated (Type 1A) anodes are comprised of high purity zinc cast around a steel tie wire with an enhanced formulated cement-based mortar with an internal pH of 14 or greater that keeps the zinc active over the life of the anode. Once installed, the zinc anode corrodes to provide galvanic corrosion prevention or corrosion control to adjacent reinforcing steel. Website: [www.vector-corrosion.com](http://www.vector-corrosion.com)

##### **DESCRIPTION**

Galvashield XP4 is designed for Corrosion control. Galvashield XP4 has 160g of Zinc mass and its nominal dimensions are 35mm X 40mm X 130mm.

##### **POTENTIAL USAGE**

To mitigate ring anode formation (halo effect) in concrete repairs  
To repair pre-stressed and post-tensioned concrete, Chloride contaminated or carbonated concrete, to repair structures with epoxy-coated rebar and to extend the life of concrete repairs and joint repairs

##### **STANDARDS**

Not provided

#### **ALBERTA TRANSPORTATION COMMENTS**

##### **EXPERIENCE**

Alberta Transportation has experience with similar products.

##### **APPLICABLE STANDARDS**

Alberta Transportation has no standard specification for cathodic protection but does specify minimum standards for galvanic coating of steel products.

##### **RECOMMENDATIONS**

Galvashield XP4 Embedded Galvanic Anodes be listed as a Proven Product under Alberta Transportation Products List, Corrosion Protection, Galvanic – Proprietary, based on the information provided.

#### **TRIAL PROJECTS**

BF 74440-1 Hwy 49 over Little Smoky River, S. of Guy (installed: 2021-10-15)

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cc Innovations Evaluation Committee – Roger Skirrow,  
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