Corrosion Solutions Corrspray[™] Metalizing Anode

Galvanic Cathodic Protection Product Datasheet Structural TECHNOLOGIES

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Description

Thermally sprayed galvanic anode for the cathodic protection of reinforced concrete structures developed under a Federal Highway Administration research contract. The anode consists of an Aluminium-Zinc-Indium* (Al-Zn-In) wire, which is thermally sprayed onto the concrete surface using the electric arc process where two wires of metal are energized and melted, then propelled towards a prepared surface at a high rate of speed to create a dense coating that adheres strongly to the substrate.

Application

- Balconies
- Columns and beams
- Bridges
- Parking garages
- Piers and wharfs
- Prestressed concrete

Features and Benefits

- Higher current output and protection levels; up to 2 to 3 times of zinc.
- More effective in drier, less humid climates in comparison with pure zinc.
- More effective over a wider ambient temperature range in comparison with pure zinc.
- Low maintenance costs.
- Aesthetically pleasing gray/silver color resembling concrete.
- Adhesion strength of 150 to 350 psi depending on concrete substrate.
- Life expectancy is up to 20 years.**

Material Specification

Nominal Chemical Composition	Proprietary blend of Al-Zn-In
Maximum Cu Content	
Solid Wire Outer Diameter	3.175mm (1/8in) OR 2.00mm (0.0787in)
Coating Density	
Plastic Spool Dimensions	10cm wide x 30cm dia. (4in x 12in)
Nominal Weight per Spool	
Estimated Life – Marine Environment**	
Estimated Life – Northern Deicing Salt Environmen	t** 15-20 years
Open Circuit Potential in Simulated Pore Water So	lution1.6 V (CSE)

Application Data

Surface Preparation	Brush Blast
Minimum Recommended Thickness	
Estimated Coverage at 300 microns	1.0kg/m2 (0.2lb/ft2)
Typical Application Rate at 300 microns (arc spray)	

*Patent US 6673309

**As with all galvanic protection systems, service life and performance is dependent upon many factors including reinforcing steel density, concrete conductivity, chloride concentration, humidity and anode spacing.

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