SECTION 09970

GALVANODE® ZINCTAPE™ FOR CORROSION

PROTECTION OF EXPOSED STEEL

Note To Specifier: This document is intended to provide assistance in developing a specification for the installation of Galvanode® ZincTape™ system for galvanic protection. This document should be modified as appropriate to accommodate project-specific conditions. For additional information, contact Vector Corrosion Technologies US 813-830-7566, Canada 204-489-6300, [www.vector-corrosion.com](http://www.vector-corrosion.com)

PART 1 GENERAL

* 1. DESCRIPTION
1. Galvanode ZincTape™ is used to provide both barrier and galvanic corrosion protection to new and existing steel structures such as bridge supports, light posts, pipelines, marine structures, transport vehicles, and industrial tanks. Galvanode ZincTape™ is designed to cover the surface of iron, steel, aluminum and light metals in order to protect them from corrosion. The product consists of high purity zinc with an electrically conductive, self adhesive backing. This allows the adhesive to create an electrical couple between the surface that needs to be protected and the zinc tape, so the zinc can act as a galvanic anode.

1.1 BID QUANTITY

Base bids on the quantity, dimensions, length, area and information in this specification and as shown on the drawings.

PART 2 PRODUCTS

2.0 SURFACE MOUNTED ZINC TAPE SYSTEM

1. The zinc tape shall be of high purity (min. 99.99% zinc) with a nominal thickness of 3 mils. The galvanic cathodic protection shall be Galvanode® ZincTape™ system by Vector Corrosion Technologies [Wesley Chapel, FL (813) 830-7566, [www.vector-corrosion.com](http://www.vector-corrosion.com)].

 Application for approved equals shall be requested in writing two weeks before submission of project bids. Application for equals shall include verification of the following information:

a. The tape shall be supplied with an electro-conductive pressure sensitive adhesive of a nominal thickness of 1 mils capable of resisting a continuous operating temperature of 248 ˚F.

b. The adhesive layer shall be covered by a silicone paper tape which protects the adhesive from damage or contamination until the tape is applied.

 c. The anode system contains a minimum of 3 mils of 99.99% pure zinc.

 d. Three references for previous projects of similar size and application, where magnetic application equipment has been used.

PART 3 – EXECUTION

3.0 SURFACE PREPARATION FOR ZINC TAPE INSTALLATION

Surface preparation is essential in achieving the optimum performance of the applied zinc tape. The surface preparation method chosen should be capable of removing loose corrosion by-products and loose coatings.

A. Employ hand tool cleaning (such as mechanical or manual wire brushing) or light abrasive blasting as necessary to remove all loose corrosion by-products and coatings to achieve a clean sound surface.

1. Clean surface of residual debris with oil free compressed air or by wiping with a clean cloth.

3.1 GALVANIC ANODE INSTALLATION

Metal surface must be dry during installation. Do not apply Galvanode ZincTape™ when the air or metal temperature is less than 38˚F or within 5˚F of the dew point. Exposure temperature should be between -45 and 248°F. Protect the zinc surface from acidic or alkaline substances with a protective top coat.

1. Areas exposed to liquids, apply Galvanode ZincTape™ to the surface from the bottom up such that the overlaps allow water to drain from the surface similar to shingles on a roof.
2. Gradually remove the zinc tape backing of the pressure-sensitive adhesive zinc tape, just before the tape is brought into contact with the metallic surface,
3. Flat or large surfaces such as large storage tanks, beams, bolted connections, vehicles, chassis, etc. Galvanode ZincTape™ is applied directly to the steel structure. Cut the tape to protect irregular shapes. Carefully apply the tape to ensure no voids or creases. Apply pressure with the Galvanode ZincTape™ Magnetic Roller applicator or other approved tools that will not damage the tape. Ensure joints and seams between sections of tape overlap a minimum of 20mm (3/4 in.).
4. Use spiral wrapping equipment for cylindrical surfaces such as pipes. The tape should be fitted to the dispenser on the wrapping machine and set up ensuring that the pressure rollers and tape tension are adjusted such that the tape is applied to the pipe without creases or voids. Contact Vector Corrosion Technologies for additional information on wrapping.
5. Cigarette wrapping – used on structures such as pipes, tanks and light posts where it is not possible to utilize the wrapping machine with tape dispenser. Circumferential strips of zinc tape are cut and hand applied. The tape is then compressed onto the structure using the magnetic roller ensuring that the tape is applied to the pipe without creases or voids.

3.2 COATINGS

Use pre-coated zinc tape. Or, if field applied coatings are utilized, the coatings such be compatible with the surface applied zinc tape anode.

\*\*\*END OF SPECIFICATION\*\*\*