



# GALVACOTE

ZINC RICH GALVANIC PROTECTION FORMULA

When it comes to corrosion protection regular primers and paints function as barriers, at best, against the elements. They simply delay the inevitable as they cannot prevent the eventual passage of moisture through the coating. The most effective and long term corrosion protection is offered via galvanizing wherein molten zinc is bonded with the steel profile forming a tenacious zinc layer on the surface. Zinc provides protection via a process called galvanic action. It passivates the steel and sacrifices itself by interacting with atmospheric moisture, thus preventing corrosion of the steel. The single greatest drawback to galvanizing is that it can only be performed at the galvanizing plant and thus precludes protection for existing structures. Also, the galvanized zinc is crystalline in nature and will crack and flake off.



Over the years many zinc rich coatings have been formulated to mimic galvanic protection. This is generally attempted by infusing the resin binder with a large volume of fine zinc particles, anywhere from 60% to 95% by weight, in the dry film. Unfortunately the intrinsic insulating nature of the resin binder interferes with the inter-particle conductivity between the zinc particles and the steel substrate it is attempting to protect. Besides curtailing the galvanic activity, the binder severely limits the amount of zinc available for galvanic protection. Furthermore, the large infusion of the pigment reduces the amount of binder available for adhesion and film strength. The result is that besides inadequate galvanic action the zinc rich coatings have poor abrasion resistance and their ultimate performance is reduced to the level of a basic barrier coating.

**Galvacote**, a new and unique corrosion protection zinc rich coating, formulated by Liquiguard Technologies, offers a multi-modal corrosion protection system. It combines well researched solutions with cutting edge raw materials to combat corrosion on many fronts. As its basic strategy it uses a polymer matrix designed to provide intense vapor barrier properties along with strong metal adhesion. **Galvacote** is infused with 99% pure and very fine zinc particles. The zinc particles are combined with cutting edge wetting and dispersing agents that aid dispersion and suspension preventing the hard settling of the zinc, a common problem with zinc rich coatings. In order to permit optimal galvanic action the formula is structured to activate a maximum amount of the zinc within the coating. This is accomplished via proprietary technology designed to overcome the limitations of the binder system, enhancing the inter-particle connectivity between the zinc particles and simulating the presence of monolithic zinc.

**Galvacote** is a low VOC coating with practically no odor. Surfaces that need to be safe guarded with **Galvacote** need not be pristine as is the case with galvanizing. Each gallon of **Galvacote** will provide 2 mils (50  $\mu\text{m}$  = 0.5mm) of dry film thickness. For optimal corrosion resistance, minimum of two coats of **Galvacote** are recommended. **Galvacote** has a medium grey finish and is also available in 12 oz. aerosol spray cans. For a clear, high gloss finish a single top coat of Liquiguard's corrosion protection clear coat, **SilCote-CR** is recommended. When using **Galvacote** in combination with **SilCote-CR** a single coat of **Galvacote** is considered sufficient for optimal protection.

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**Galvacote** is extremely easy to apply using a brush, roller or airless sprayer and will air dry to form a tough tenacious film. The standard product has a medium gray color. The coating will become dry to the touch in 10 to 15 minutes at ambient temperature of 77°F. It will continue to cure over the next 72 hours and develop its optimal protective properties. Objects to be coated should be free of all surface dirt, loose rust and other contaminants.

**Galvacote** has a spread rate of 450 square feet per gallon with a dry film thickness of approximately 2 mils. A minimum two coat application is recommended to achieve optimal efficacy when not applying a topcoat. Because of its aesthetic surface appearance **Galvacote** does not need a topcoat although the same is recommended in outdoor and aggressive environments. When **Galvacote** is used as a primer, Liquiguard Technologies' **SilCote-CR**, a corrosion resistant primer/topcoat, is an excellent choice for the topcoat. **Galvacote** can also be topcoated with commonly available water based acrylic and urethane paints. Allow **Galvacote** to dry completely before commencing with the application of additional coats or the topcoat. Alkyd and oil based paints should not be used as topcoats over **Galvacote**.



There are no fumes, odors or other hazards associated with the use of **Galvacote**. All normal precautions for use, storage and handling should be exercised as with any other paint product. Work area, tools, spills, etc. can be easily rinsed with paint thinners or mineral spirits. When applying **Galvacote** via spraying, make sure to protect surrounding areas from overspray. Wipe off excess and run-offs immediately with a damp rag or sponge.

**Galvacote** can be ordered in single gallon and 5 gallon pails. Due to the very special nature of the **Galvacote** additives please allow sufficient time for order processing. **Galvacote** is a proprietary product manufactured by **Liquiguard Technologies** and is available for order directly from our main offices located in Fort Lauderdale, Florida, USA.