

# TIM'S TECH TIPS

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## ALUMINUM CORROSION

Yes aluminum does “rust” although not in quite the same way as steel.

Aluminum corrosion is defined as the electrochemical and other reactions of the metallic substance with its environment, causing the deterioration and degradation of the aluminum material as well as its essential properties.

Aluminum and its alloys are subject to corrosion in the presence of moisture and oxygen, just like steel. However on aluminum a thin film is formed on the surface that acts as a protective barrier. Unfortunately this oxide film becomes very unstable in the presence of an electrolyte such as salt water.

When an aluminum component is in electrical contact with a dissimilar metal such as steel with the presence of an electrolyte such as salt water ( Think road deicing chemicals) this will cause Galvanic Corrosion which will cause deterioration of the aluminum and steel.

These electrolytes are any of the road deicing chemicals used today such as Sodium Chloride (salt) Calcium Chloride and of course Magnesium Chloride which seems to be more corrosive to aluminum than Sodium Chloride.

Even though many vehicles use aluminum in their construction the need for a quality Rust Inhibitor and Under Coatings are more important than ever.

At ValuGard our coatings have been fully tested for both application and performance on aluminum substrates with excellent results as expected.