GRABBER
Construction Products

# GALVANIC REACTION CHART

Below is a galvanic reaction chart for dissimilar metals.

This chart is designed to assist in broadly assessing the risk of galvanic corrosion associated with a given metal coming into contact with another metal. To use the chart, align the metal to be assessed (for the risk of corrosion) in the left column with the Contact Metal listed in the upper row; green represents a lower risk* and red represents a higher risk. For a more specific assessment of the risk of galvanic corrosion, please reference other sources.

| Galvanic Corrosion Risk | | Contact Metal | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Magnesium and Alloys | Zinc and Alloys | Aluminum and Alloys | Cadmium | Carbon Steels | Cast Iron | Stainless Steel | Lead, Tin, and Alloys | Nickel | Brasses, Nickel-Silvers | Copper | Bronzes, Cupro-Nickels | Nickel Copper Alloys | Nickel-Chrome Alloys, Titanium, Silver, Graphite, Gold, and Platinum |
| Corroding Metal | Magnesium and Alloys | | | | | | | | | | | | | | |
| | Zinc and Alloys | | | | | | | | | | | | | | |
| | Aluminum and Alloys | | | | | | | | | | | | | | |
| | Cadmium | | | | | | | | | | | | | | |
| | Carbon Steel | | | | | | | | | | | | | | |
| | Cast Iron | | | | | | | | | | | | | | |
| | Stainless Steels | | | | | | | | | | | | | | |
| | Lead, Tin, and Alloys | | | | | | | | | | | | | | |
| | Nickel | | | | | | | | | | | | | | |
| | Brasses, Nickel-Silvers | | | | | | | | | | | | | | |
| | Copper | | | | | | | | | | | | | | |
| | Bronzes, Cupro-Nickels | | | | | | | | | | | | | | |
| | Nickel Copper Alloys | | | | | | | | | | | | | | |
| | Nickel-Chrome Alloys, Titanium, Silver, Graphite, Gold, and Platinum | | | | | | | | | | | | | | |

*Green represents "lower risk" not "no risk."

It should be noted that if sacrificial plating is incorporated into the fastener design, then galvanic action can result in the deterioration of the sacrificial coating, rather than of the fastener. We would advise that the suggested fasteners for dissimilar-metal applications would incorporate our GrabberGard® coating that utilizes both barrier and sacrificial coatings to minimize the chance and/or rate of corrosion. The barrier coating used to encapsulate the base steel and zinc layer plus anti-corrosion chemical bonding agents minimize the opportunity for contact to occur, thereby further minimizing the risk of corrosion.