

Galvanic Corrosion

When dissimilar metals are in contact with another in the presence of electrolyte (such as rainwater running from one surface to another) galvanic action may occur. This will result in the deterioration of the metal with the lower galvanic number.

Copper has the highest galvanic number of the active metals and will not be harmed by contact with them. It will cause corrosion of the metals if in direct contact with them. The principal metals for concern are zinc (galvanized steel) and aluminum. In most cases, it is not necessary to isolate copper from lead, tin or stainless steel.

Galvanic Scale (Nobility) of Common Metals

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|-------------|-----------------------------|------------------------------|
| 1. Aluminum | 4. Iron | 7. Lead |
| 2. Zinc | 5. Stainless Steel (active) | 8. Copper |
| 3. Steel | 6. Tin | 9. Stainless Steel (Passive) |