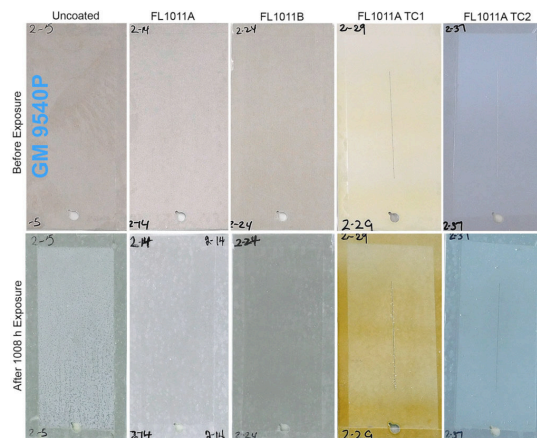


Electrochemical Corrosion Testing on FLORYL Coating

The electrochemical polarization (anodic and cathodic) and impedance testing in 3.15% NaCl at ambient (20°C) temperature. The 2×2 inch aluminum -2024 panels were coated and compared with uncoated panels.

The presence of the coating has significantly reduced the current density throughout the test potential range of ± 600 mV of open circuit. The data indicates that the coating is acting as a barrier to slow the diffusion of reactants to the metal surface.

In general, coatings are considered protective when their low frequency (≤ 0.1 Hz) impedance values are equal to or greater than 1×10^6 ohms.cm², higher values indicating better protection. The coated samples in electrochemical impedance analysis test exhibited impedance values as high as 1×10^9 ohms.cm². These tests indicate that the protective property of the coating is significant.



Corrosion Testing on FLORYL Coated Metals

The uncoated and coated aluminum panels were tested in accelerated corrosion test chamber as per ASTM B117 and GM 9540P standards for 6 weeks (i.e., 1008 h). The FLORYL coated aluminum panels did not show any sign of corrosion until 336 h. A little surface roughness was observed on coated aluminum after 1008 h. Coating effectively protected aluminum alloys.