

## **Investigating the effect of electrolytes on the performance of coating using the AC-DC-AC method**

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### **Abstract**

Electrochemical Impedance Spectroscopy (EIS) has been used to investigate the performance of organic coatings. Coupling EIS with a direct current (DC), the AC-DC-AC method can expedite changes in transport mechanisms within the coating and allows short term experimental answers. It has been applied to expedite coating failure and rank protective performances. AC-DC-AC method has also been attempted to expedite the diffusion of electrolytes in the coating. The influence of electrolyte types on the diffusion and performance behavior of coating has yet to be understood. In this work, we used the AC-DC-AC technique to expedite the electrolyte diffusion in coating and study the influence of electrolyte types on the diffusion and performance behavior.