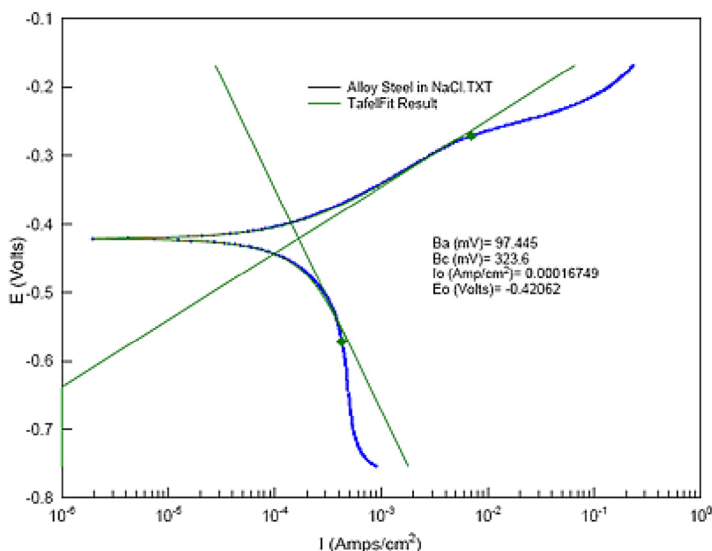




• Consulting • Training • Expert Witness • Failure Analysis • Design Review • Corrosion Test • Inspection • Coatings • Materials • CP • >>>

Corrosion Testing and Corrosion Monitoring

WebCorr has NACE certified Corrosion Specialist providing corrosion advisory services, corrosion diagnosis, corrosion testing and corrosion monitoring, in-house training, online and distance learning corrosion courses, corrosion consulting, corrosion failure analysis and corrosion expert witness in litigation and arbitration cases related to corrosion, materials, metallurgy, paints & metallic coatings including thermal spray metallizing, galvanizing, anodizing, chromating, phosphating, electroplating, electroless plating, mechanical plating, and sheradizing or diffusion coating.



In addition to Corrosion Literature Search & Supply (CLSS), our NACE certified corrosion specialist can also provide corrosion testing and monitoring services in accordance with *international standards* such as ASTM, ISO, BSI, DIN, JIS, NACE and SIS. Our capability covers both DC polarization techniques and AC impedance measurements and EIS equivalent circuit modeling with popular softwares such as Boukamp's Equivcirt, Scribnere's ZView & CorrView and Mansfield's EIS Modules. Our NACE certified corrosion specialist will analyze the raw (or processed) corrosion data, write and sign the technical report. Expert witness and litigation support are also available if required.

Verification or Certification Test: Verification of whether materials or products have been produced in accordance with the relevant international standards or to contract specifications may be established by corrosion test. WebCorr has access to a wide range of equipment and expert personnel for testing physical, mechanical and corrosion resistance properties of materials.

DC and AC (EIS) Corrosion Testing & Monitoring techniques can be used for the following applications:

- Corrosion rate determination
- Life prediction of components and structures
- Materials selection and evaluation
- Anode testing and selection
- Assessment of the corrosiveness of an environment or process
- Corrosion inhibitor screening (determination of inhibiting efficiency)
- Protective property of polymeric paint (organic coatings) and composite
- Quality control and performance evaluation of electroplating, electroless plating, galvanizing, anodizing, chromating, and phosphating treatments
- Determining susceptibility of a material to pitting, crevice and sensitization or intergranular stress corrosion cracking
- Optimization of processing parameters (temperature, pH, flow rate etc.) to minimize corrosion
- Online or offline monitoring of corrosion

- Trouble shooting and failure investigation

More application examples are given in the corrosion short course on "[Corrosion Testing and Monitoring Made Easy: Techniques and Applications](#)".

Typical Corrosion Testing and Monitoring Services Provided to Clients:

- Design review and development of a corrosion monitoring plan and philosophy for a FPSO.
- Corrosion test for a multinational pharmaceutical company to select a proper material for construction of reaction vessel
- Corrosion test of Hastelloys (B, B2, C, C4, C-276, C22) in waste chemicals
- Corrosion testing of a titanium nozzle used in a chemical process plant
- Design of a corrosion sensor for monitoring corrosion in a marine concrete structure
- Measurements of impedance and admittance of anodized aluminum in accordance with ASTM, BS and ISO standards
- Calibration and customization of corrosion sensors, corrosion probes for cooling water system
- Corrosion test for corrosion inhibitor screening
- Electrochemical impedance (EIS) testing and modeling of protective coatings
- Remaining life assessment and life prediction of organic coatings
- Verification and assessment of surface preparation standard of a coated steel structure
- Assessment of the corrosion resistance of gold and gold-PTFE plating in printer inks
- Evaluation of the shelf life and the corrosion resistance of Al-based wafer in process chemicals
- Measurements of impedance and admittance (seal value) of sealed anodized aluminium
- Assessment of the corrosion resistance of electroless Ni-P coatings on aluminum substrate
- Investigation of the effect of alloying elements on the corrosion resistance of electroless nickel (Ni-P-Cu, Ni-P-Mo and Ni-P-Sb)

Short Courses Related to Corrosion Testing & Monitoring:

The following corrosion short courses are relevant to corrosion testing and monitoring. They can be conducted at any time for you as in-house training courses, online courses or distance-learning courses.

- Corrosion Testing and Monitoring Made Easy: Techniques and Applications (3 days with lab)
- A Basic Course in Corrosion Control and Prevention (5 days)
- Modern Techniques for Corrosion Testing and Monitoring in Concrete Structures (2 days)
- Electrochemical Impedance Spectroscopy
 - Measurement, Modeling, Data Interpretation & Applications (2 days)

Public courses, seminars and workshops are also conducted regularly. The contents and schedules of corrosion short courses for the current year is available [here](#).