

Salt spray test

Morteza Khodaei



PowerPoint

What is salt spray?



The salt spray test is **used to assess the corrosion resistance of coatings and finishes on metal surfaces**. The test can be used to evaluate the impact of different exposure conditions, such as humidity and temperature, on a coating's ability to resist corrosion.

How the salt spray works

Salt fog and salt spray can corrode surfaces and coatings on maritime equipment, highway infrastructure, and automobiles. A salt spray test can help predict how materials will corrode under different salt fog conditions. To understand the performance materials, coating systems, inhibited coatings, corrosion preventative compounds, or surface preparation methods, Southwest Research Institute (SwRI) performs a wide range of standardized accelerated corrosion and weathering tests using cyclic salt fog chambers, RH/T chambers and UV weathering chambers.



Salt Spray Fog Testing & Research



The salt spray testing chamber is used to test the corrosion resistance on product surfaces after they have been coated in varnish, oil, or another coating material, or after they have been electroplated or anodized in order to prevent the underlying materials from becoming corroded. This testing chamber is widely used in hardware, electroplating, electronics, chemical, communication, automobile, space industries and more. These chambers assist the manufacturer in determining product capabilities in special environments by simulating a corrosive environment. Control is done through a touch tone controller.

Salt Spray Test Standards

Salt Fog Test ASTM B117

ASTM G85, A2, A3, A5: Standard Practice for Modified Salt Spray (Fog) Testing

ASTM D1735: Standard Practice for Testing Water Resistance of Coatings Using Water Fog Apparatus

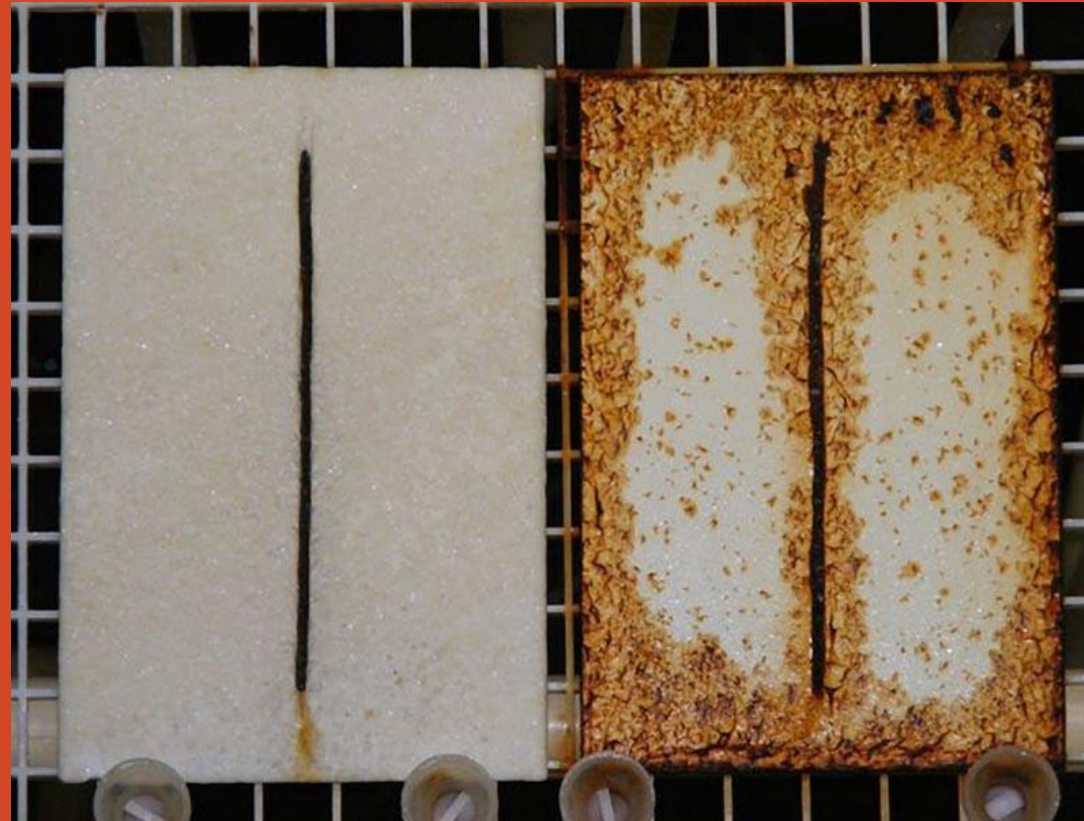
GM9540/GMW 17872: Accelerated Corrosion Test

SAE J2334: Laboratory cyclic Corrosion Test

ISO 9227: Corrosion Tests in artificial atmospheres-Salt Spray Tests

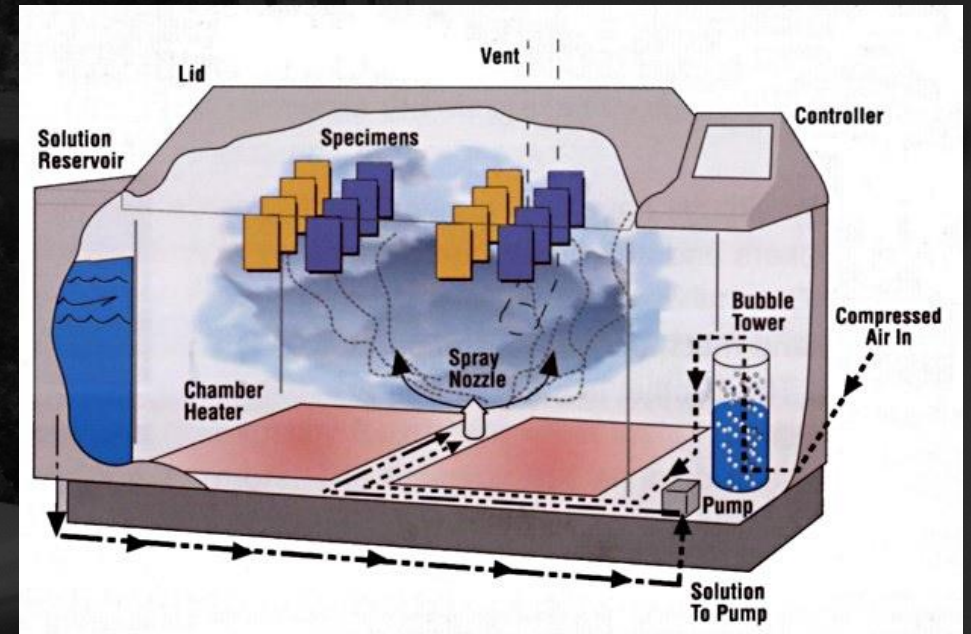
NACE SP108: Corrosion Control of Offshore Structures by Protective Coatings

Salt spray picture



instruction

Although each laboratory has a slightly different set up, the basics of the test are as described above. Heresite is fortunate to have a cabinet with a digital readout displaying the total hours of test cabinet operation, as well as alarms that will notify us about a variety of important things, such as if the salt solution level becomes low. These features are important because some salt spray tests run for extremely long times. For example, Heresite P-413 was tested against ASTM B-117 for 6,000+ hours. That's 250 straight days (or a little over 8 months) of continuous salt spray.





Thanks for attention