

Analysis of the behavior of a galvanization by immersion by NDE

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Abstract : The purpose of the study is to develop a method of experimental characterization, primarily non-destructive, to evaluate the anticorrosive effectiveness of galvanized coatings applied by immersion. The method used in this work is to apply non-destructive testing appropriate and essential vis-à-vis the coatings: aging in salt spray; by electrochemical impedance, grab tests and eddy current. These tests are performed on a sample set of galvanized steel prepared in the state of the art, it will enable for us to judge the relevance of the method used, in order to describe the corrosion resistance of a coating. These results are invaluable in determining the anticorrosive protection of metallic structures exposed at corrosion problems, in particular, in the installation of duplex systems (anticorrosive coating combined with cathodic protection).

Keywords : galvanization, immersion, sea water, EIS, Eddy Current, adhesion.