

ISO 9813:2023-10 (E)

Corrosion of metals and alloys - Performance test method for corrosion inhibitors used in chemical cleaning of industry equipment

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus	2
4.1 Container used in the static test below 100 °C	2
4.2 Container used in the static test above 100 °C	2
4.3 Dynamic test device	2
4.4 Specimen suspending device	3
4.5 Constant temperature device	3
4.6 Oven	3
4.7 Analytical balance	4
4.8 Vernier caliper	4
4.9 Magnifier	4
4.10 Colorimetric tube	4
4.11 Pipette	4
5 Reagents and materials	4
5.1 Experimental water	4
5.2 Acetone	4
5.3 Ethanol	4
5.4 Abrasive paper	4
6 Test specimens	4
7 Pretreatment of specimens	4
8 Test condition	5
8.1 Ratio of solution volume to surface area of immersed metal	5
8.2 Concentration of cleaning agent	5
8.3 Concentration of corrosion inhibitor	5
8.4 Temperature	5
8.5 Test duration	5
8.6 Other provisions	5
9 Procedure	5
9.1 Static test	5
9.2 Dynamic test	6
9.3 Calculation of the corrosion rate	7
9.4 Intergranular corrosion and stress corrosion	7
9.5 Solubility and dispersion test	7
9.6 Time effectiveness test	8
10 Report	8
Annex A (informative) Result of corrosion inhibitor test	9
Bibliography	12