ISO 16540:2015-10 (E)

Corrosion of metals and alloys - Methodology for determining the resistance of metals to stress corrosion c racking using the four-point bend method

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Principle 1

5 Loading jig design 2

6 Specimen preparation 3
6.1 General 3
6.2 Parent material specimens 3
6.3 Welded specimens 4
6.4 Clad product specimens 5

7 Strain gauging 5

8 Loading 6
8.1 Strain level 6
8.2 Setting the total strain value 6
8.3 Testing at elevated temperature 8

9 Test environment 8
9.1 General 8

10 Procedure for four-point bend testing 9

11 Failure appraisal 10
11.1 Carbon steel 10
11.2 Corrosion resistant alloys 10

12 Test report 11

Annex A (informative) Surface preparation (see also ISO 7539-1) 12

Annex B (informative) Procedure for strain gauging and determining uniaxial stress-strain calibration curve 16

Bibliography 18