ISO 9350:2025-08 (E)

Corrosion of metals and alloys - Testing method of corrosion resistance for hafnium at high temperature and pressure

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Principle 1

5 Significance 2

6 Reagents and materials 2

7 Apparatus 2

8 Hazards 3

9 Sampling, test specimens and test units 3

10 Preparation of apparatus 3

11 Calibration and standardization 3
11.1 Coupon preparation 3
11.2 Autoclaves 4
11.3 Use of control coupons 4
11.4 Calibration 5

12 Conditioning 5
12.1 Test water quality 5
12.2 Autoclave load restrictions 5
12.3 Test conditions 5
12.3.1 Temperature 5
12.3.2 Pressure 5
12.3.3 Time 5
12.3.4 Tests 5
12.4 Specimen preparation 6
12.4.1 Etched specimens 6
12.4.2 As-manufacturer specimens 6

13 Procedure 6
13.1 Inspection of specimens 6
13.2 Dimensions, weight and inspection 6
13.3 Autoclaving 6
13.3.1 Placing of test specimens 6
13.3.2 Venting method A 6
13.3.3 Refreshed autoclaving, method B 7
13.4 Post-test measurements and inspection 7

14 Calculation or interpretation of results 7
14.1 Calculation of mass gain 7
14.2 Visual interpretation of surface appearance 8
14.3 Invalid tests 8

15 Test report 8

Annex A (informative) Guide to specimen preparation 9

Bibliography 11