

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Test methods
4.1	Static immersion test
4.1.1	Information required
4.1.2	Application
4.1.3	Reagents
4.1.4	Apparatus
4.1.5	Solution preparation
4.1.6	Samples
4.1.6.1	Fabrication
4.1.6.1.1	Cast
4.1.6.1.2	Prefabricated
4.1.6.1.3	Other
4.1.6.2	Sampling
4.1.6.3	Sample surface area
4.1.6.4	Preparation
4.1.6.4.1	Cast samples
4.1.6.4.2	Machined, sintered, eroded or electroformed samples
4.1.6.4.3	Prefabricated parts/devices
4.1.7	Test procedure
4.1.8	Elemental analysis
4.1.9	Test report
4.2	Electrochemical test
4.2.1	Information required
4.2.2	Application
4.2.3	Reagents
4.2.4	Apparatus
4.2.5	Solution preparation
4.2.6	Samples
4.2.6.1	Fabrication
4.2.6.1.1	Cast
4.2.6.1.2	Prefabricated
4.2.6.1.3	Other
4.2.6.2	Sampling
4.2.6.3	Sample surface area
4.2.6.4	Preparation
4.2.7	Test procedure
4.2.7.1	Test set-up
4.2.7.2	Open-circuit potential measurement
4.2.7.3	Potential measurements (anodic polarization)
4.2.8	Test report
4.3	Sulfide tarnish test (cyclic immersion)
4.3.1	Information required
4.3.2	Application
4.3.3	Reagents
4.3.4	Apparatus

- 4.3.5 Solution preparation
- 4.3.6 Samples
  - 4.3.6.1 Fabrication
  - 4.3.6.2 Sampling
  - 4.3.6.3 Sample surface area
  - 4.3.6.4 Preparation
- 4.3.7 Test procedure
- 4.3.8 Inspection
- 4.3.9 Test report
- 4.4 Sulfide tarnish test (static immersion)
  - 4.4.1 Information required
  - 4.4.2 Application
  - 4.4.3 Reagents
  - 4.4.4 Apparatus
  - 4.4.5 Solution preparation
  - 4.4.6 Samples
    - 4.4.6.1 Fabrication
    - 4.4.6.2 Sampling
    - 4.4.6.3 Sample size
    - 4.4.6.4 Preparation
  - 4.4.7 Test procedure
  - 4.4.8 Inspection
  - 4.4.9 Test report
- 4.5 Static immersion test with periodic analysis
  - 4.5.1 Information required
  - 4.5.2 Application
  - 4.5.3 Reagents
  - 4.5.4 Apparatus
  - 4.5.5 Solution preparation
  - 4.5.6 Samples
    - 4.5.6.1 Fabrication
      - 4.5.6.1.1 Cast
      - 4.5.6.1.2 Prefabricated
      - 4.5.6.1.3 Other
    - 4.5.6.2 Sampling
    - 4.5.6.3 Sample surface area
    - 4.5.6.4 Preparation
      - 4.5.6.4.1 Cast samples
      - 4.5.6.4.2 Machined, sintered, eroded or electroformed samples
      - 4.5.6.4.3 Prefabricated parts or devices
  - 4.5.7 Test procedure
  - 4.5.8 Elemental analysis
  - 4.5.9 Test report
- 4.6 Dental amalgam
- 4.7 Crevice corrosion
  - 4.7.1 Principle
  - 4.7.2 Application
  - 4.7.3 Test medium
  - 4.7.4 Materials
  - 4.7.5 Apparatus
  - 4.7.6 Specimen
    - 4.7.6.1 Size
    - 4.7.6.2 Preparation
  - 4.7.7 Procedure
  - 4.7.8 Inspection
  - 4.7.9 Test report

**Annex A (informative) Corrosion test method development**

- A.1 Method development
  - A.1.1 Principle
  - A.1.2 Safety — Generation of harmful corrosion products
  - A.1.3 Efficacy — Loss of substance
  - A.1.4 Change in appearance
- A.2 Procedure

<b>A.3</b>	<b>Test type</b>
<b>A.3.1</b>	<b>General conditions</b>
<b>A.3.2</b>	<b>Sampling</b>
<b>A.3.2.1</b>	<b>Embedded samples</b>
<b>A.3.2.2</b>	<b>Duration</b>
<b>A.3.3</b>	<b>Exposure</b>
<b>A.3.3.1</b>	<b>Oral simulation</b>
<b>A.3.3.2</b>	<b>Voltammetric</b>
<b>A.4</b>	<b>Sample type</b>
<b>A.4.1</b>	<b>Embedded sample</b>
<b>A.4.1.1</b>	<b>General</b>
<b>A.4.1.2</b>	<b>Polished sample</b>
<b>A.4.1.3</b>	<b>Rough sample</b>
<b>A.4.2</b>	<b>Open type</b>
<b>A.4.2.1</b>	<b>General</b>
<b>A.4.2.2</b>	<b>Polished sample</b>
<b>A.4.2.3</b>	<b>Rough sample</b>
<b>A.4.3</b>	<b>Other</b>
<b>A.5</b>	<b>Test medium</b>
<b>A.5.1</b>	<b>General</b>
<b>A.5.2</b>	<b>Synthetic saliva</b>
<b>A.5.3</b>	<b>Artificial plaque fluid</b>
<b>A.5.4</b>	<b>Sulfide solution</b>
<b>A.5.5</b>	<b>Chloride solution</b>
<b>A.5.6</b>	<b>Foodstuffs</b>
<b>A.6</b>	<b>Other conditions</b>
<b>A.6.1</b>	<b>Undisturbed</b>
<b>A.6.2</b>	<b>Disturbed</b>
<b>A.6.3</b>	<b>Brushed</b>
<b>A.7</b>	<b>Assessment</b>
<b>A.7.1</b>	<b>Elemental analysis</b>
<b>A.7.2</b>	<b>Gravimetric analysis</b>
<b>A.7.3</b>	<b>Inspection</b>
<b>A.7.3.1</b>	<b>Visual</b>
<b>A.7.3.2</b>	<b>Scanning electron microscope (SEM)</b>
<b>A.7.3.3</b>	<b>Reflectivity</b>
<b>A.7.3.4</b>	<b>Colour</b>
<b>A.7.4</b>	<b>Mechanical testing</b>
<b>A.7.4.1</b>	<b>Strength</b>
<b>A.7.4.2</b>	<b>Roughness</b>

Page count: 32