

---

---

**Corrosion of metals and alloys —  
Accelerated cyclic test with exposure  
to acidified salt spray, dry and wet  
conditions**

*Corrosion des métaux et alliages — Essais cycliques accélérés avec  
exposition au brouillard salin acidifié, en conditions «sèches» et en  
conditions «humides»*

iteh Standards  
(<https://standards.iteh.ai>)  
Document Preview

ISO 16151:2018

<https://standards.iteh.ai/catalog/standards/iso/d20741c0-dd57-4243-9949-4ab3bb988626/iso-16151-2018>



**iTeh Standards**  
**(<https://standards.itih.ai>)**  
**Document Preview**

[ISO 16151:2018](https://standards.itih.ai/catalog/standards/iso/d20741c0-dd57-4243-9949-4ab3bb988626/iso-16151-2018)

<https://standards.itih.ai/catalog/standards/iso/d20741c0-dd57-4243-9949-4ab3bb988626/iso-16151-2018>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

Foreword.....	iv
Introduction.....	v
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>2</b>
<b>4 Test solution.....</b>	<b>2</b>
4.1 General.....	2
4.2 Method A.....	2
4.2.1 Neutral sodium chloride solution.....	2
4.2.2 Preparation of the acidified-salt solution.....	2
4.3 Method B.....	3
4.3.1 Preparation of the mixed salt solution.....	3
4.3.2 Preparation of the acidic solution.....	3
4.3.3 Preparation of the acidified-salt solution.....	3
<b>5 Apparatus.....</b>	<b>3</b>
<b>6 Test specimens.....</b>	<b>5</b>
<b>7 Arrangement of the test specimen.....</b>	<b>5</b>
<b>8 Operating condition.....</b>	<b>6</b>
<b>9 Continuity of tests.....</b>	<b>8</b>
<b>10 Duration of the tests.....</b>	<b>8</b>
<b>11 Treatment of test specimens after test.....</b>	<b>8</b>
11.1 General.....	8
11.2 Non-organic coated test specimens: metallic and/or inorganic coated.....	8
11.3 Organic coated test specimens.....	8
11.3.1 Scribed organic coated test specimens.....	8
11.3.2 Organic coated but not scribed test specimens.....	9
<b>12 Evaluation of results.....</b>	<b>9</b>
<b>13 Test report.....</b>	<b>9</b>
<b>Annex A (informative) Relationship between amounts of acidic stock solution added to mixed salt solution and pH of the resulting acidified-salt solution.....</b>	<b>11</b>
<b>Annex B (informative) Typical apparatus for accelerated cyclic tests with exposure to acidified salt spray, dry and wet conditions.....</b>	<b>12</b>
<b>Annex C (informative) Method for evaluation of the corrosivity of the apparatus.....</b>	<b>14</b>
<b>Annex D (normative) Preparation of test specimens with organic coatings for testing.....</b>	<b>16</b>
<b>Annex E (normative) Required supplementary information for testing test specimens with organic coatings.....</b>	<b>17</b>
<b>Bibliography.....</b>	<b>18</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

This second edition cancels and replaces the first edition (ISO 16151:2005), which has been technically revised. The main technical changes are as follows:

- harmonization with ISO 9227; [ISO 16151:2018](https://standards.iteh.ai/catalog/standards/iso/d20741c0-dd57-4243-9949-4ab3bb988626/iso-16151-2018)
- terms and definitions clause has been added.