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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 43118-2023

Corrosion of metals and alloys - Test method for high temperature corrosion testing of metallic materials by application of a deposit of salt, ash, or other substances

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is modified from ISO 17224.2015 "Corrosion of metals and alloys by deposits of salts, ash or other substances on metallic materials"

Test methods for high-temperature corrosion under the action of

Compared with ISO 17224.2015, this document has made the following structural adjustments.

a) Delete 3.1 and 3.3 of ISO 17224.2015, and adjust 3.2 and 3.4 of ISO 17224.2015 to 3.1 and 3.2;

b) Table 1 of ISO 17224.2015 is deleted and Table 2 of ISO 17224.2015 is adjusted to Table 1;

c) The suspended paragraph of 6.1 of ISO 17224.2015 is deleted;

d) Added informative appendix A "Technical differences between this document and ISO 17224.2015 and their reasons";

e) Appendix B corresponds to Appendix A of ISO 17224.2015.

Compared with ISO 17224.2015, there are many technical differences between this document and the vertical margins of the outer margins of the clauses involved.

Single lines (|) are marked. A list of these technical differences and their causes is shown in Appendix A.

This article has made the following editorial changes.

---Replaced ISO 21608.2012 with the informative reference GB/T 38430-2019 (see 4.3.1 and 4.5.2);

---Replaced ISO 8407.2009 with GB/T 16545-2015, which is equivalent to the international document (see B.1 and B.2);

---Deleted column 1 and its contents in Table A.1 and Table A.2 in Appendix A of ISO 17224.2015 (see Table B.1 and Table B.2).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the conditions for metallic materials to be exposed to deposits of salt, ash and/or other substances and to controlled gaseous environments at high temperatures.

, test methods for evaluating their corrosion resistance. Preparation of sediment corrosion by spraying, dipping or brushing the sample before testing

environment.

This document is applicable to high-temperature corrosion tests of metallic materials under the action of deposits of salt, ash or other substances.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 10123 Corrosion terminology for metals and alloys (GB/T 10123-2022, ISO 8044.2020, IDT)

GB/T 16545-2015 Corrosion of metals and alloys Removal of corrosion products from corrosion specimens (ISO 8407.2009, IDT)

GB/T 16701 Method for measuring thermal electromotive force of precious metal and cheap metal thermocouple wires

GB/T 16839.1 Thermocouples Part 1.Electromotive force specifications and tolerances

GB/T 41654 Corrosion of metals and alloys - Methods for metallographic examination of

specimens after exposure to high-temperature corrosive environments (GB/T 41654-2022,ISO 26146.2012,IDT)

JJG141 working precious metal thermocouple

3 Terms and definitions

The terms and definitions defined in GB/T 10123 and the following apply to this document.

3.1

corrosive depositcorrosivedeposit

A mixture of salts, ash and/or other substances containing compounds that react with metals at high temperatures.

Note. Corrosion deposits can melt at the test temperature.

3.2

descaling

Before measuring the mass of the remaining metal, remove corrosion products and corrosion phases from the specimen surface.

4.1 Principles

The number of samples should be no less than 3 to ensure the reproducibility of the test results. Two of the specimens are used for measuring mass changes or dimensional changes.