

CCS H 25



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 40314-2021

**Corrosion of metals and alloys - Crevice corrosion formers with
disc springs for flat specimens or tubes made from stainless
steel**

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Foreword

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

Drafting.

This document uses the redrafting method to modify and adopt ISO 18070.2015

“Corrosion of metals and alloys applies to stainless steel plates or tubes

The crevice corrosion configuration of the disc spring of the sample”.

Compared with ISO 18070.2015, this document has made the following structural adjustments.

---Added informative Appendix A "Technical differences between this document and ISO 18070.2015 and their reasons", Appendix A of the original international standard

Adjusted to Appendix B;

---Change the suspension section in 5.1 to 5.1.1.

Compared with ISO 18070.2015, this document has technical differences.

The set vertical single line (|) is marked, and Appendix A gives a list of the corresponding technical differences and their reasons.

1 Scope

This document specifies the specimens, crevice members, and crevice corrosion test specimens used for crevice corrosion tests on stainless steel flat or tubular specimens in corrosive solutions.

Assembly and documentation.

This document does not specify how to perform the crevice corrosion test and how to evaluate the results of the corrosion test.

This document is applicable to the crevice corrosion configuration of disc springs of stainless steel flat or tubular specimens. If the sample is designed for electrical connection, this article

The crevice corrosion configuration specified in the article can also be used for electrochemical measurement.

2 Normative references

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

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 1972 Disc spring

GB/T 6682 Analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696:1987, MOD)

GB/T 9258.2 Particle size analysis of abrasives for coated abrasives Part 2. Determination of the particle size composition of coarse abrasive particles P12~P220

(GB/T 9258.2-2008, ISO 6344-2:1998, IDT)

GB/T 9258.3 Particle size analysis of abrasives for coated abrasives Part 3. Determination of particle size composition of micropowder P240~P2500

(GB/T 9258.3-2017, ISO 6344-3:2013, MOD)

GB/T 10123 Basic terms and definitions of corrosion of metals and alloys (GB/T 10123-2001, ISO 8044:1999, IDT)

3 Terms and definitions

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

4 symbols

The following symbols apply to this document.

H0.Length before loading.

H1.The length after loading.

H2.Length after loading and exposure.

f1.The amount of deformation before exposure.

f2.The amount of deformation after exposure.

5.1 Specifications

5.1.1 Stainless steel flat or tubular specimens can be used for the crevice corrosion configuration specified in this document. The outer surface area of the sample should not be less than