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GB/T 6461-2002

Replacing GB/T 6461-1986

GB/T 12335-1990

Methods for Corrosion Testing of Metallic and Other Inorganic Coatings on Metallic Substrates - Rating of Test Specimens and Manufactured Articles Subjected to Corrosion Tests

金属基体上金属和其他无机覆盖层经腐蚀试验后的试样和试件的评级

(ISO 10289:1999, IDT)

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Foreword

This Standard equivalently adopts ISO 10289:1999 “Methods for Corrosion Testing of Metallic and Other Inorganic Coatings on Metallic Substrates - Rating of Test Specimens and Manufactured Articles Subjected to Corrosion Tests” (English edition).

This Standard equivalently translates the international standard; it is based on the English edition of the international standard. For ease of use, the following editorial modifications are made:

- Use “This Standard” to replace “this International standard”;
- Delete the “Foreword” in the international standard.

This Standard replaces GB/T 6461-1986 “Metallic Coatings - Coatings Cathodic to the Substrate - Rating of Electro-plated Test Specimens Subjected to Corrosion Tests” and GB/T 12335-1990 “Metallic Coatings - Coatings Anodic to the Substrate - Rating of Test Specimens Subjected to Corrosion”.

Compared with GB/T 6461-1986 and GB/T 12335-1990, the main changes in this Standard are as follows:

- For “Dot Charts for Coatings Anodic to the Base Metal” (Appendix B), it better-matches with the shapes of defects on specimens and articles after corrosion test in a further degree; Appendix A in the former GB/T 12335 is deleted.
- Chapter 6 in this Standard makes significant modifications to those in Chapters 5, 6 and 7 of the former GB/T 12335; Chapters 4, 5, 6, and Appendix A in the former GB/T 6461, so as to make the expression to be clearer and more complete.
- “Within 6mm of the edge of a specimen” in Section 3.4 of the former GB/T 6461 and Section 4.5 in the former GB/T 12335 is changed to be “within 5mm of the edge of a specimen or tape/wax”.

Appendixes A and B in this Standard are informative.

This Standard was proposed by the China Machinery Industry Federation

This Standard shall be under the jurisdiction of the National Technical Committee on Metallic and Non-metallic Coatings of Standardization Administration of China.

Drafting organization of this Standard: Wuhan Material Protection Research Institute.

Chief drafting staffs of this Standard: Zhang Yan, Li Zhi, Wang Yaping, Sun Zhiyong, Wu Laixing, and Zhang Sanping.

The previous editions replaced by this Standard are as follows:

GB/T 6461-1986, and GB/T 12335-1990.

Methods for Corrosion Testing of Metallic and Other Inorganic Coatings on Metallic Substrates - Rating of Test Specimens and Manufactured Articles Subjected to Corrosion Tests

1 Scope

This Standard gives a method of evaluating the condition of decorative and protective metallic and inorganic coated panels or articles which have been exposed to corrosive environments for test or for other purposes.

It is applicable to test panels or articles exposed to natural atmospheres, in mobile or static conditions, or subjected to accelerated tests.

Notes 1: Examples of such tests are given in the Bibliography.

This Standard recognizes that the protection rating can be assessed objectively in accordance with Chapter 6. However, the assessment of appearance depends on many subjective factors (see Section 6.2).

2 The edges of test panels or articles may be protected, e.g. by tape or wax (paraffin), if this is an agreed part of the test, it shall be recorded in the test report. This is essential if the specimens are cut from larger pieces and have exposed uncoated edges.

2 Terms and Definitions

For the purpose of this Standard, the following terms and definitions apply.

2.1

Protection rating

R_p

Rating number (see Table 1) assigned to the ability of the coating to protect the base metal from corrosion.

2.2

Protection defect

Defect used to assess the protection rating, including crater corrosion, pin-hole

Bibliography

GB/T 6464-1997 Metals and Its Coatings - Atmospheric Corrosion Testing - General Requirements for Field Tests (eqv ISO 8565:1992)

GB 6465-1986 Metallic and Other Non-organic Coatings - Corrodokote Corrosion Test (CORR Test) (eqv ISO 4541:1978)

GB 9789-1988 Metallic and Other Non-organic Coatings - Sulfur Dioxide Test with General Condensation of Moisture (eqv ISO 6988:1985)

GB/T 10125-1997 Corrosion Tests in Artificial Atmospheres - Salt Spray Tests (eqv ISO 9227:1990)

GB/T 11377-1989 Metallic and Other Non-Organic Coatings - General Rules for Corrosion Tests Applicable for Storage Conditions (eqv ISO 4543:1981)

GB/T 14293-1998 Corrosion Tests in Artificial Atmospheres - General Requirement (eqv ISO 7384:1986)

JB/T 7702-1995 Metallic and Non-organic Coatings on Metallic Substrates - Saline Droplets Corrosion Test (SD Test) (eqv ISO 4536:1985)

ISO 4538-1978 Metallic Coatings - Thioacetamide Corrosion Test (TAA Test)

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Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

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