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

GB/T 26323-2010

**Paints and varnishes -- Determination of resistance to filiform
corrosion on aluminium and aluminium alloys**

色漆和清漆 铝及铝合金表面涂膜的耐丝状腐蚀试验

(English Translation)

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Foreword

This revised standard adopts ISO 4623-2:2003 "Paints and varnishes - Determination of resistance to filiform corrosion - Part 2. Aluminium substrates" (In English).

The standard in the use of international standards have been modified, these technical differences identified in a single vertical line they involved clauses margin Blank, technical differences and the reasons given in the list in Appendix D for reference.

The standards with international standards ISO 4623-2:2003 compared to the main technical differences are.

- Remove the foreword and introduction of international standards;
- Scope added "This standard is not used to assess the saturated vapor intolerant hydrochloric acid electrophoretic paint, acrylic resin paint and other aluminum tables Filiform corrosion-resistant surface coating 'section;
- The second chapter in the normative references to international standards as equivalent to the use of replacement or modification of national standards adopted;
- Reference EN3665-1997, provides cross-sectional dimension scratches;
- Modify the "ISO/TC35 plan Article 12 to collect all relevant data accuracy standards, including ISO 4623 portion of this Minute. If the accuracy of the data applies, then it is consistent with this file "section;
- Modified ISO 4623-2:2003 Assessment Methods section, using the German specification GSBAL631/2009 filiform corrosion resistance Test results of the evaluation method, which is incorporated as a normative appendix Appendix B, and the first two of assessment ISO 4628-10 the method introduced in Appendix C, but since the image evaluation method is more difficult to operate without introducing test pictures can be provided as needed to client;

--- Added Appendix B, Appendix C, Appendix D.

The Standard Appendix A, Appendix B, Appendix C is a normative appendix.

Appendix D of this standard is informative appendix.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee paint pigment (SAC/TC5) centralized.

This standard was drafted. Guangya Aluminum Co., Ltd., CNOOC Changzhou coating Chemical Research Institute, the National Quality Supervision, Inspection and non-ferrous metal Heart, Liaoning Zhongwang Group, Shenzhen, China plus Japan Aluminum Co., Ltd., Dalian Bryan fluorine coating Co., Ltd., China Coating Industry Association, Guangdong Fung Alcoa Aluminum Co., Ltd. Foshan Hua Hao Aluminum Company Limited.

1 Scope

This standard specifies the test methods for assessment of aluminum and aluminum alloy surface coating paints and varnishes filiform corrosion resistance and filamentous corrosion degree method.

This standard only applies to aluminum and aluminum alloy surface paint, varnish coating, filiform corrosion resistance was assessed to test the coating/substrate.

Electrophoretic paint resistant to rot filamentous This standard does not apply to assess intolerant of saturated vapor of hydrochloric acid, acrylic paints and other surface coating of aluminum Erodibility.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 622 chemical reagent hydrochloric acid (GB/T 622-2006, ISO 6353-2. 1983, NEQ)
GB/T 3186 Paints, varnishes and raw materials for paints and varnishes - Sampling (GB/T 3186-2006, ISO 15528:2000, IDT) GB/T 9271 Paints and varnishes - Standard panels for (GB/T 9271-2008, ISO 1514:2004, MOD) GB/T 9278 paint sample conditioning and testing temperature and humidity (GB/T 9278-2008, ISO 3270. 1984, Paintsand varnishesandtheirrawmaterials-Temperaturesandhumiditiesforconditioningandtesting, IDT) GB/T 13452.2 Paints and varnishes - Determination of film thickness (GB/T 13452.2-2008, ISO 2808:2007, IDT) GB/T 20777 Paints and varnishes examination and preparation of

samples (GB/T 20777-2006, ISO 1513:1992, IDT)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Filiform corrosion Occur in paint, varnish or related products coating a corrosion filamentous shape, showing filamentous irregularly distributed, generally from the film Cutting edge or local damage at the beginning of production.

NOTE: The length and direction of the wire is usually corrosion growth is irregular, but may be close to parallel, approximately equal in length. Corrosion wire along the machine direction and generally very Less cross each other corrosive ions require excitation.

4 Principle of the method

Conditions and situations 4.1 filiform corrosion occurs Penetration paint or varnish coating film on various types of metal corrosion can produce scratches, such as bubble film, and a metal corrosion under the coating film Filiform corrosion. Filiform corrosion often at a certain temperature and a certain humidity conditions in the appropriate amount of acid, base or salt-induced, occur in the coating film is weak or breakage of the film at. In the seaside or industrial environment with these conditions occur filiform corrosion. Corrosion under the coating film substrate is usually from scratches Department began. A typical form of filiform corrosion is visible filaments.

4.2 Test Principle

Sample prescribed manner scratches. The sample was exposed by hydrochloric acid in saturated steam, the introduction of a small amount of hydrochloric acid to scratches. Then the sample