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

GB 30872-2014

**Wrought aluminium alloy extruded profiles with acrylic coating
for architecture**

建筑用丙烯酸喷漆铝合金型材

(English Translation)

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Foreword

This standard Article 4.3.1.1, 4.3.2 is mandatory, the rest are recommended.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard by the national non-ferrous metals Standardization Technical Committee (SAC/TC243) centralized.

Drafting of this standard. Guangdong Xingfa Aluminum (Henan) Co., Ltd., Fujian Nanping Aluminum Co., Ltd., Guangdong Xinhe Aluminium Co.

The company, Shandong Nanshan Aluminum Co., PPG Paint Co., Ltd., Nanhai, Foshan City Paint Co., Ltd. and the United States, there Fujian Minfa Aluminium Limited, Guangdong Jianmei Aluminum Factory (Group) Co., Ltd., Guangdong Haomei Aluminum Co., Ltd. Guangya Aluminum Co., Ltd., Foshan City, South China Sea Hao Aluminum Co., Ltd., Guangdong Feng Aluminum Co., Ltd.

1 Scope

This standard specifies the construction with acrylic paint aluminum profiles requirements, test methods, inspection rules and signs, packaging, transportation and storage and quality certification and purchase order (or contract) content.

This standard applies acrylic paint as a coating architectural aluminum profiles.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 5237.1 Aluminum Profiles Part 1. matrix GB 5237.5 Aluminum Profiles - Part 5. PVDF coating profiles Part of GB/T 8005.3 aluminum and aluminum alloys - Terms 3. Surface Treatment GB/T 8013.3 aluminum and aluminum anodized film and organic polymer coatings - Part 3. an organic polymer coating film

3 Terms and Definitions

GB/T 8005.3 and GB/T 8013.3, GB 5237.5 define the following terms and definitions apply to this document.

Acrylic coating Spray the metal surface of the substrate by a thermosetting acrylic paint cured coating layer, also known as acrylic paint.

4.1.1 Grade, status, specifications

Alloy grades, supply states and specifications shall comply with the provisions of GB 5237.1.

4.1.2 Mark

Profiles marked by product name, serial number of this standard, alloy grades, supply status, product specifications (by the code name and profile cut length of two parts Composition), color code representation. Tag example as follows.

6063 alloy manufacturing, supply state is T5, codenamed 421,001 profiles, length of 6000mm, color, code-named 275 065 Acrylic painting profiles, labeled.

Acrylic paint color profiles GB 30872-6063T5-421001 x 6000- 275 065

4.2 Pretreatment, chemical composition, mechanical properties, dimension deviation

Pretreatment profile, chemical composition, mechanical properties, dimensional tolerances shall comply with the provisions of GB 5237.5.

4.3.1 Coating thickness

4.3.1.1

decorative surface coating average thickness $\geq 20\mu\text{m}$, minimum local thickness $\geq 17\mu\text{m}$.

Note: Due to the cross-sectional shape of the extrusion of the complexity of some of the resulting surface profiles (e.g., interior angle, transverse grooves, etc.) of the coating thickness is less than a predetermined value is allowed.

Coating thickness profiles 4.3.1.2 non-decorative surface is generally not required, if required, should be indicated in the order (or contract) in.

4.3.2 Adhesion

Dry coating, wet adhesion and adhesion boiling water should reach 0.

4.3.3 Salt spray corrosion resistance

4.3.3.1

After 1500h neutral salt spray test, a visual inspection of the coating surface after the test, under the dash on both sides of the membrane permeation unilateral corrosion width should not exceed 2mm, crossed both sides of the outside part of 2mm coating should not have corrosion.

4.3.3.2

Demand side spray corrosion resistance have other special requirements, agreed upon by both parties, and indicate in the order (or contract) in.

4.3.4 Moist heat resistance

After a 1500h damp heat test, the coating change should reach 1 level.

4.3.5.1 Accelerated weathering

After the coating is irradiated by a xenon lamp 1000h artificial accelerated weathering test, the test results should be consistent with Table 1.

Table 1

A test time

test results

The rate of loss of light discoloration 1000h $\Delta E_{ab}^* \leq 5$ $\leq 50\%$ a red, yellow, orange, black and other bright colors, and the test time and test results Metallic coatings agreed by both parties, and in the purchase order (or contract) as noted.

4.3.5.2 Natural weathering

When the demand side of the natural weathering resistance is required, the test conditions and acceptance criteria agreed upon by both parties, and indicate in the order (or contract) in.

4.3.6 gloss, color and color, coating hardness, impact resistance, hydrochloric acid resistance, Mortar resistance, detergent resistance, quality appearance shall comply with the provisions of GB 5237.5.

5.1 Salt spray corrosion resistance

According to the test method specified in GB 5237.5 carried 1500h neutral salt spray test.

5.2 Other

According to the test method specified in GB 5237.5 test.

6.1 Inspection and acceptance

6.1.1

Products should be for the inspection to ensure product quality and compliance with this standard purchase order (or contract) provisions, and fill in the quality certificate Manual.

6.1.2

demand-side response received product reinspection according to the provisions of the standard. Reinspection results with this standard and purchase order (or contract) provisions Does not match, the supplier shall be made in writing by both parties through consultation. Belonging to the surface quality and the size of the deviation objection, shall, upon receipt Within one month from the date of the products made, other properties belonging to the opposition, should be the date of receipt of goods within three months. For arbitration, may appoint Care supply and demand sides recognized units and the need to make joint arbitration sampled.

6.2 Batch

Product acceptance shall be submitted in batches, each batch should be the same alloy grades, status, size, color and type of coating composition profiles, batch weight limitation.