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GB 22638.4-2008

Test methods for aluminium and aluminium alloy foils – Part 4: Determination of surface wetting tension

铝箔试验方法

第4部分：表面润湿张力的测定

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Foreword

GB/T 22638 "Test method for aluminium and aluminium alloy foils" is divided into 10 parts:

- Part 1: Determination of thickness by gravimetric method;
- Part 2: Determination of porosity;
- Part 3: Determination of stickiness;
- Part 4: Determination of surface wetting tension;
- Part 5: Determination of wettability by brushing;
- Part 6: Determination of direct current resistance;
- Part 7: Determination of heat seal strength;
- Part 8: Determination of texture;
- Part 9: Determination of hydrophilic property;
- Part 10: Determination of mass per unit area (surface density) of coatings.

This is part 4 of GB/T22638. This part is formulated by reference to EN 546.4-1997 "Aluminum and aluminum alloy foils - Part 4: Special performance requirements".

This part was proposed by the China Nonferrous Metals Industry Association.

This part shall be under the jurisdiction of National Nonferrous Metals Standardization Technical Committee.

Main drafting organization of this part: North China Aluminium Co., Ltd.

Participating drafting organization of this part: China Nonferrous Metals Industry Standard Metrology and Quality Institute, Shanghai Enyuan Industrial Co., Ltd, and Xiamen Xiashun Aluminium Foil Co., Ltd.

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Test methods for aluminium and aluminium alloy foils

– Part 4: Determination of surface wetting tension

1 Scope

This part of GB/T 22638 specifies the method for determination of aluminum foil's surface wetting tension.

This part applies to the determination of aluminum foil's surface wetting tension.

2 Method principle

This method is based on the principle – on a fixed surface, BRUSH-TRY different solutions, of which the wettability is different; CHOOSE different solutions, so as to determine the aluminum foil's surface wetting tension.

3 Reagents and materials

3.1 Formamide, analytically pure

3.2 Glycol ether, analytically pure

3.3 Distilled water

4 Preparation of test solutions

TAKE appropriate amount of formamide (3.1), glycol ether (3.2) and distilled water (3.3); PREPARE the test solution according to Table 1; PUT into the test bottle for later use.

Table 1

Serial number of test solution	Test solution
1	Glycol ether
2	Formamide - glycol ether mixed solution (2.3 + 97.5)
3	Formamide - glycol ether mixed solution (26.5 + 73.5)
4	Formamide - glycol ether mixed solution (10.5 + 89.5)
5	Formamide - glycol ether mixed solution (19.0 + 81.0)
6	Formamide - glycol ether mixed solution (26.5 + 73.5)
7	Formamide - glycol ether mixed solution (35.0 + 65.0)
8	Formamide - glycol ether mixed solution (42.5 + 57.5)
9	Formamide - glycol ether mixed solution (48.5 + 51.5)

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