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

GB/T 22638.3-2016

Replacing GB/T 22638.3-2008

**Test methods for aluminium and aluminium alloy foils - Part 3:
Determination of stickiness**

铝箔试验方法 第3部分：粘附性的检测

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Table of Contents

Foreword...	3
1 Scope...	5
2 Method principle...	5
3 Test conditions...	6
4 Sampling...	6
5 Overall detection method...	6
6 Local detection method...	6
7 Result expression...	7
8 Test report...	7

Foreword

GB/T 22638, Test methods for aluminium and aluminium alloy foils, consists of 10 parts. --
Part

1 Scope

GB/T 22638.3-2016 is the Chinese national standard on test methods for aluminium and aluminium alloy foils - part 3: determination of stickiness, in the field of metallurgy. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 December 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2017. Classification: ICS 77.040.01, CCS H20. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Part of GB/T 22638 specifies the method principle, test conditions, sampling, overall detection method, local detection method, result expression and test report for the determination of stickiness of aluminium and aluminium alloy foils. The overall detection method specified in this Part is applicable to the arbitration determination of stickiness of annealed aluminium and aluminium alloy foils with a thickness not exceeding

0.05 mm. The local testing method specified in this Part is applicable to the determination of

stickiness between layers on the edges or in local areas of annealed aluminium and aluminium alloy foils with a thickness not exceeding

0.05 mm and a width exceeding 800 mm.

2 Method principle

Manually peel off the outer aluminum foil; measure the minimum detachment length L required for the aluminum foil to peel off naturally due to the downward weight of the peeled portion (as shown in Figure 1); use this length to evaluate the degree of stickiness between the aluminum foil layers. Key. OA, O1A1 - Horizontal lines passing through the axis; L - Detachment length of the peeled portion of the aluminum foil. Figure 1 - Schematic diagram of the overall detection method

3 Test conditions

The test shall be carried out at room temperature, and the temperature of the aluminium and aluminium alloy foil roll shall not be 5 °C or higher than room temperature.

4 Sampling

Remove at least 3 mm of the outer layer of the aluminium and aluminium alloy foil roll before testing.

5 Overall detection method

5.1 Place the aluminium and aluminium alloy foil roll in a suspended horizontal position.

5.2 Manually peel off the outer aluminium and aluminium alloy foil in the opposite direction of winding, and unfold it as shown in Figure

1. Measure the minimum detachment length L required for the aluminum foil to peel off naturally due to the downward weight of the peeled portion (as shown in Figure 1).

5.3 When the required length L is long, the hanging aluminum foil can be folded up until the total weight of the hanging aluminum foil just causes the aluminum foil to peel off naturally. Then unfold the folded aluminum foil and measure the total length L of the aluminum foil that has peeled off.

6 Local detection method

6.1 Place the aluminium and aluminium alloy foil roll in a suspended horizontal position.

6.2 Along the width direction, retain approximately 100 mm of the outer aluminum foil to adhere to the aluminum foil roll; manually peel off the remaining width of the outer aluminum foil to the lowest part of the aluminum foil roll in the opposite direction of winding

(as shown in Figure 2).

9 Determination of hydrophilic property; -- Part

10. Determination of mass per unit area (surface density) of coatings. This Part is Part 3 of GB/T 22638. This Part is drafted in accordance with the rules given in GB/T 1.1-2009. This part replaces GB/T 22638.3-2008 Test methods for aluminium and aluminium alloy foils - Part

3. Determination of stickiness. As compared with GB/T 22638.3-2008, the main technical changes are as follows: -- Change the thickness of the outer layer of the aluminum foil roll to be removed before testing to 3 mm; -- Add the "local inspection method" for testing the stickiness between layers on the edges or in local areas of annealed aluminium and aluminium alloy foils with a thickness not exceeding

0.05 mm and a width exceeding 800 mm. -- Remove the requirement to "use the average value of the test results of three rolls of test samples as the test value of stickiness". This Part is proposed by the China Nonferrous Metals Industry Association. This Part shall be under the jurisdiction of National Technical Committee 243 on Nonferrous Metals of Standardization Administration of China (SAC/TC 243). Test methods for aluminium and aluminium alloy foils - Part