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

GB/T 26110-2025

Replacing GB/T 26110-2010

Zinc-aluminium flake coatings - Technical specification

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.Information provided by the buyer	2
5.Identification	2
6.Technical Requirements	3
6.1 Appearance	3
6.2 Coating Amount and Coating Thickness	3
6.3 Adhesion strength	3
6.4 Salt spray corrosion resistance	3
6.5 Water resistance	4
6.6 Condensation Resistance	4
6.7 Resistance to damp heat	4
6.8 Heat resistance	4
6.9 Hardness	4
6.10 Chemical resistance	4
6.11 Requirements for the Control of Hazardous Substances in Coatings	4
6.12 VOC emission control requirements for coating process	4
7.Sampling	4
8.Test Methods	4
8.1 Appearance	4
8.2 Coating Amount and Coating Thickness Tests	5
8.3 Adhesion strength test	5
8.4 Salt spray test	5
8.5 Water resistance test	5
8.6 Condensation Test	5
8.7 Damp heat test	6
8.8 Heat resistance test	6
8.9 Hardness Test	6
8.10 Chemical resistance test	6
8.11 Hazardous substance content test	6
11 References	12

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB/T 26110-2010 "Technical Conditions for Zinc-Aluminum Coating". Compared with GB/T 26110-2010, except for structural adjustments... Aside from integration and editorial changes, the main technical changes are as follows:

- The scope has been changed (see Chapter 1, Chapter 1 of the 2010 edition);
- Added normative reference GB/T 3099.3 (see Chapter 3);
- The definition of "zinc-aluminum coating" has been changed (see 3.1, Chapter 3 of the 2010 edition);
- Added "Zinc-aluminum composite coating", "topcoat", "zinc-aluminum paint", "flaky zinc powder", "flaky aluminum powder", "flaky zinc-aluminum alloy powder", and "volatile matter". Terms and definitions for "volatile organic compounds" and "inspection batch" (see 3.2, 3.3, 3.4, 3.5, 3.6, 3.7,
- The information that the buyer should provide to the supplier has been changed (see Chapter 4, Chapter 4 of the 2010 edition);
- The appearance requirements for coatings of other colors have been changed (see 6.1.1, 2010 version of 6.1.1);
- The specifications for the coating amount and thickness for different coating grades have been changed (see 6.2, 2010 version of 6.2);
- The requirements for salt spray corrosion resistance have been changed (see 6.4, 2010 version 6.4);
- Added "Condensation Resistance", "Chemical Resistance", "Hazardous Substance Control Requirements in Coatings", and "VOC Emissions During Coating Processes" The emission control requirements (see 6.6, 6.10, 6.11 and 6.12) and their corresponding test methods (see 8.6, 8.10,
- The technical requirements for coating hardness have been changed (see 6.9, 6.8 in the 2010 edition);

1 Scope

GB/T 26110-2025 is the Chinese national standard covering the zinc-aluminium flake coating on fasteners - a chromium-free, non-electrolytic finish that gives high salt spray

resistance without the hydrogen embrittlement that plating causes in high-strength bolts. Issued on 2 December 2025, it has been in force since 1 July 2026, replacing GB/T 26110-2010.

This document specifies the technical requirements for zinc-aluminum coatings on steel parts and components, and describes the corresponding test methods. This document applies to surface protection of various materials, including steel, cast iron, aluminum and its alloys, and iron-based powder metallurgy.

Note. For the applicability and performance characteristics of zinc-aluminum coatings, please refer to Appendix A.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 1735 Determination of heat resistance of paints and varnishes

GB/T 3099.3 Fastener Terminology - Surface Treatment

GB/T 4956 Measurement of Non-Magnetic Coating Thickness on Magnetic Substrates - Magnetic Method

GB/T 6462 Microscopic Method for Measuring the Thickness of Metallic and Oxide Coatings

GB/T 6739 Paints and varnishes - Determination of film hardness using the pencil method

GB/T 10125 Corrosion test under artificial atmosphere - Salt spray test

GB/T 13893 Determination of moisture resistance of paints and varnishes - Continuous condensation method

GB 16297 Integrated Emission Standard for Air Pollutants

GB/T 16921 X-ray spectral method for measuring the thickness of metallic coatings

GB 30981.2 Limits of Hazardous Substances in Coatings Part

3 Terms and Definitions

The terms and definitions defined in GB/T 3099.3, as well as the following terms and definitions, apply to this document.

3.1 Zinc-aluminum coatings are applied by dipping, brushing, or spraying onto the surface

of steel parts or components, and then baked to form a corrosion-resistant coating with flake zinc as the main component. coating. Note

1.Zinc-aluminum coating is also known as flake zinc-aluminum coating, flaky zinc-aluminum coating, or non-electrolytic zinc flake coating. Note

2.Zinc-aluminum coatings may or may not contain sheet aluminum. Note

3.Zinc-aluminum coatings can be used alone as corrosion-resistant coatings, or as a primer and topcoat to form a zinc-aluminum composite coating.

3.2 A coating system consisting of a zinc-aluminum coating as the base coat and a top coat applied to its surface.

3.3 Topcoat A surface coating is applied on top of a zinc-aluminum coating, which is a base coat.