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

GB/T 3880.3-2024

Replacing GB/T 3880.3-2012

**Wrought aluminium and aluminium alloy plates, sheets and
strips for general engineering - Part 3: Dimensional tolerances**

一般工业用铝及铝合金板、带材 第3部分：尺寸偏差

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1 Scope

GB/T 3880.3-2024 is the third part of the Chinese standard for general engineering aluminium plate, sheet and strip, and it carries the dimensional tolerances. It is the part a delivery is actually measured against: the permitted deviation on thickness across the width and along the length, on width and on length, the flatness, the edge camber and the squareness, the permitted lateral bow of strip, and the tolerances on the diameter and the winding of a coil, each tabulated by product form, by alloy group, by temper and by the nominal dimension. Aluminium sheet is sold by weight and used by area, so a systematic

thickness deviation inside tolerance is money moving from one party to the other, which is why this part is consulted far more often than the ones on chemistry and properties. The 2024 edition replaces GB/T 3880.3-2012. For a rolling mill, a fabricator or a buyer inspecting a delivery in China, this is the measurement text.

This document specifies the dimensional deviation grade, technical requirements, test methods of general industrial aluminum and aluminum alloy plates and strips. This document applies to general industrial aluminum and aluminum alloy rolled plates and strips (hereinafter referred to as "plates and strips").

2 Normative references

The contents of the following documents constitute the essential terms of this document through normative references in the text. Among them, for dated references, only the version of that date applies to this document; for undated references, the latest version (including all amendments) applies to this document.

GB/T 1031 Geometrical product specifications (GPS) - Surface texture. Profile method - Surface roughness parameters and their values

GB/T 8005.1 Aluminium and aluminium alloy terms and definitions - Part 1. Product and method of processing and treatment

GB/T 8170 Rules of rounding off for numerical values and expression and judgement of limiting values

GB/T 26492.3 Defects of wrought aluminium and aluminium alloys ingots and products - Part

3 Terms and definitions

The terms and definitions, which are defined in GB/T 8005.1 and GB/T 26492.3, apply to this document.

4 Symbols

The symbols in Table 1 apply to this document.

5 Deviation grade

The dimensional deviation grade of plates and strips shall comply with the provisions of Table 2.

6.1.1.2 Hot-rolled plates and strips

6.1.2 Thickness range The thickness range of plates and strips in the same batch (the

difference between the maximum and minimum measured thickness) shall comply with the provisions of Table

8. When the purchaser has special requirements for the thickness range, it shall be determined by negotiation between the supplier and buyer and indicated in the order (or contract).

6.2.1 Width deviation of plates

6.2.1.1 The width deviation of plates is divided into ordinary grade and high-precision grade. When the purchaser requires high-precision grade, it shall be determined by negotiation between the supplier and buyer and indicated in the order form (or contract).

6.2.2 Width deviation of strip

6.2.2.1 The width deviation of strip is divided into ordinary grade and high precision grade. When the purchaser requires high precision grade, it shall be determined by negotiation between the supplier and buyer and indicated in the order (or contract). If not indicated, it shall be ordinary grade.

6.2.2.2 The width deviation of strip of finished product secondary trimming shall comply with the provisions of Table

10. When the purchaser requires positive or negative symmetrical deviation, it shall be indicated in the order (or contract); the allowable deviation value is half of the value in Table 10.

6.3 Length

6.3.1 The length deviation of the plate is divided into ordinary grade and high precision grade. When the purchaser requires high precision grade, it shall be determined by negotiation between the supplier and buyer and indicated in the order (or contract). If not indicated, it shall be based on ordinary grade.

6.3.2 The length deviation of the plate shall comply with the provisions of Table 11. When the purchaser requires positive and negative symmetrical deviations, it shall be

6.4 Unevenness

6.4.1 The unevenness of the plate is divided into ordinary grade and high-precision grade. When the purchaser requires high-precision grade, the supplier and buyer shall negotiate and determine, meanwhile indicate it in the order form (or contract). If it is not indicated, the ordinary grade shall be used. The ordinary grade unevenness of the plate shall comply with the provisions of Table 12; the high-precision grade unevenness shall comply with the provisions of Table 13.

6.5 Side curvature

6.6 Diagonal The diagonal deviation of the plate is divided into ordinary grade and high-precision grade. When the buyer requires high-precision grade, it shall be determined by negotiation between the supplier and buyer and indicated in the order form (or contract). If not indicated, the ordinary grade shall be used. The diagonal deviation of the plate shall comply with the provisions of Table 18 for ordinary grade and Table 19 for high-precision grade.

6.7 Center convexity When the buyer has requirements for the center convexity of plates and strips, the supplier and buyer shall negotiate and determine, meanwhile indicate in the order (or contract). The convexity of the mother plate or mother strip of the plate or strip shall be 0% ~ 1.5%.

6.8 Roughness When the purchaser has requirements for the surface roughness of cold-rolled plates and strips, the supplier and the purchaser shall negotiate and determine, meanwhile indicate it in the order (or contract). The surface roughness (Ra) of cold-rolled plates and strips shall not exceed 0.50 μm .

6.9 Staggered layers and tower shapes The staggered layers of strips shall not exceed 3 mm; the tower shape shall not exceed 10 mm (except for the inner 5 circles and the outer 2 circles). When the purchaser has special requirements for the staggered layers and tower shapes of strips, the supplier and the purchaser shall negotiate and determine, meanwhile indicate it in the order (or contract).

6.10 Others Where there are other requirements for the dimensional deviation of plates and strips, the supplier and the purchaser shall negotiate and determine, meanwhile indicate it in the order (or contract).

7 Test methods

7.1 Dimension rounding Dimension measurement values are not allowed to be rounded off; the method for determining the limit value shall comply with the provisions of GB/T 8170.

7.2 Thickness The thickness of plates and strips shall be measured at a distance of not less than 10 mm from the side and not less than 115 mm from the end, using a micrometer which has an accuracy of

0.01 mm or a measuring tool which has the same accuracy.

7.3 Width and length The width and length of plates and strips shall be measured using tools which have corresponding accuracy.

7.4.1.3 Multiple waves

7.4.2 Unevenness of strip Cut a specimen from the strip; the specimen length is 1000 mm ~