



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

GB/T 2073-1993

**Bimetal strips
(English Translation)**

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1 Subject and scope

This standard specifies the product classification, technical requirements, test methods, inspection rules, packaging, marking, transportation, storage of bimetallic strips.

This standard applies to silver-pure copper, silver-brass, silver-tin bronze, silver-zinc cupronickel bimetallic strips, which are used in the manufacture of various electrical contact materials.

2 Normative references

GBn 64 Precious metals and their alloys - Plates and strips GB 235 Metallic materials - Sheet and strip - Reverse bend test (Sheets and strips with thickness equal to or less than 3 mm) GB 5121 Copper - chemical analysis methods GB 5122 Brass - Chemical analysis methods GB 5231 Processed copper - Chemical composition and product shape GB 5232 Processed brass - Chemical composition and product shape GB 5233 Processed bronze - Chemical composition and product shape GB 5234 Processed cupronickel - Chemical composition and product shape GB 8002 Tin bronze - Chemical analysis methods GB 8550 Cupronickel - chemical analysis methods GB 8888 Packaging, marking, transportation and storage of processed non-ferrous metal products GB 11067 Silver - Chemical analysis methods

3.1 Designation, temperament, specifications

The designation, status, specifications of the products shall conform to the provisions of Table 1.

3.2 Dimensional tolerances

3.2.1

The dimensional tolerances of the strip shall conform to the provisions of Table 2.

Note: (1) When the buyer requires a thickness deviation of only "+" or "-", the value shall be twice the value in the Table.

(2) The allowable thickness deviation level must be specified in the contract; otherwise, it shall be supplied as ordinary grade.

(3) The allowable delivery weight of the strip shall not exceed 15% of the lot weight; the length shall not be less than 1 m.

3.2.2

The strip shall be straight, but slight waviness is permitted. The side curvature of the strip shall not exceed 4 mm per meter.

3.3 The layer thickness ratio of the bimetallic strip shall be specified in the contract.

3.4 Marking examples

a. A common grade bimetallic strip made of Ag2 and T2, in a soft state, with a thickness of 0.50 mm, a width of 150 mm, a layer-to-thickness ratio of 1.3, is marked as.

Strip 1.3Ag2/T2 M0.50x150 GB/T 2073-93 b. A higher grade bimetallic strip made of Ag2 and H68 brass, in a semi-hard state, with a thickness of 0.40 mm, a width of 100 mm, a layer-to-thickness ratio of 1.5, is marked as.

Strip 1.5Ag2/H68 Y2 Higher Grade 0.40x100 GB/T 2073-93

4.1 Chemical composition

The chemical composition shall conform to the provisions of GBn 64, GB 5231, GB 5232, GB 5233, GB 5234.

4.2 Mechanical performance

If the buyer has special requirements, the supplier and buyer may agree to provide measured data on the mechanical properties of the strip.

4.3 Processing performance

The bond of the bimetallic strip must be strong; there shall be no delamination after repeated bending tests. The supplier may not conduct repeated bending tests, but must guarantee its processing performance. If the buyer requires this test, it shall be specified in the contract.

4.4 Surface quality

4.4.1

The surface of the strip shall be smooth and clean. There shall be no cracks, peeling, bubbles, inclusions, or creases.

4.4.2

Minor, localized defects such as scratches, spots, pits, indentations, roll marks are permissible, provided they do not cause the strip thickness to exceed the permissible tolerance. Slight darkening and minor, localized oil or water stains will not be grounds for rejection.

4.5 Others

Both sides of the strip shall be neatly cut, free of burrs, cracks, curls.