

ICS 77.150.60
CCS H 62



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

GB/T 8012-2013

Replacing GB/T 8012-2000

Casting tin-lead solders

铸造锡铅焊料

(English Translation)

Issued on: December 17, 2013

Implemented on: September 1, 2014

Issued by: Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 8012-2000 "casting tin-lead solder." This standard compared with GB/T 8012-2000, the main technical content Changes are as follows.

--- Grade 40 by the reduced 37. A class adds two grades codenamed 15A, 5A's. Class B Delete codenamed 35B, 30B, 25B, 20B of the four grades. Containing silver solder delete codenamed 63Ag, 60Ag, 50Ag of three grades, increase codenamed Ag1.5, Ag2.5 the two grades;

--- Chemical composition partly modified. Code 63AA of impurity elements in bismuth by the $\leq 0.005\%$ revised to $\leq 0.008\%$;

A class codenamed 63A, 60A, 55A, 50A, solder containing silver solder and phosphorus content of bismuth by the modification of $\leq 0.01\%$ 0.020% , codenamed Ag2 containing silver solder silver content from 1% to 4% (specific content agreed by both parties) is amended as 1.80% - 2.20%;

--- Delete the original standard "in addition to Sb, Bi, Cu, impurity is not greater than the sum of 0.08%" requirement;

--- The requirement to remove physical properties;

--- Increased production sampling requirements of the product;

--- Deleted "Article weight, $250 \pm 25\text{g}$ " provisions.

The standard reference used by the US ASTM B32-2008 "solder metal standards", the international standard ISO 9453-2006 "solder Alloy chemical composition and shape "and the Japanese standard JIS Z3282-2006" solder chemical composition and shape. " Various grades of impurities Limited are stricter than the corresponding grades above standard

limits of impurities. Reference to the physical properties of cast tin-lead solder in Appendix A, and ASTM B32-2008 grades contrast Appendix B.

This standard by the national non-ferrous metals Standardization Technical Committee (SAC/TC243) centralized.

1 Scope

This standard specifies the requirements for casting tin-lead solder, test methods, inspection rules, marking, packaging, transportation, storage and quality certificates as well as Contract (or purchase order) content.

This standard applies to wet, fire refining production casting tin-lead solder.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 8170 repair value expressed about the rules and limit values \u200b\u200band judgment GB/T 10574 (all parts), chemical analysis of tin Method

3.1 Categories

Casting by tin-lead solder alloy composition is divided into 37 grades, as shown in Table 1.

3.2 Chemical composition

3.2.1

Casting lead solder chemical composition shall comply with the requirements in Table 1.

3.2.2

demand side, such as the chemical composition of cast tin-lead solder with special requirements, agreed upon by both parties.

3.3 Appearance quality

Cast tin-lead solder surface should be clean, non-corrosive, not a slag, burrs and foreign inclusions.

3.4 (article) Quality 3.4.1 casting tin-lead solder ingots (bars) single ingot (bars) should meet the quality specified in Table 2.

Table 2 Xiqianhanliao casting ingot (bars) Quality

Ingot weight/kg 25 ± 3 10 ± 1 5 ± 0.5 Article weight/g 1000 ± 100 500 ± 50 -

3.4.2 When the shape and quality of the cast tin-lead solder with special requirements, agreed upon by both parties.

Test Method 4

Arbitration chemical composition analysis 4.1 casting tin-lead solder according to the provisions of GB/T 10574 performed.

4.2 casting tin-lead solder as required elements other than those specified in Table 1 is detected by the supply and demand sides determined in consultation analysis.