

GB/T 12599-2002

ICS 25.220.40

A 29



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

中华人民共和国国家标准

GB/T 12599-2002

Replace GB/T 12599-1990

**Metallic coatings--Electroplated coatings of
tin--Specification and test methods**

金属覆盖层 锡电镀层 技术规范 and 试验方法

(ISO 2093: 1986, Electroplated coatings of tin—Specification and test methods,
MOD)

Issued on September 11, 2002

Implemented on April 01, 2003

**Issued by General Administration of Quality Supervision, Inspection
and Quarantine of the People's Republic of China**

**Standardization Administration of the People's Republic of
China**

Contents

Foreword.....	1
0 Introduction.....	1
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
4 Information to be supplied by the purchaser to the electroplater	3
5 Basis material	4
6 Sampling.....	4
7 Classification	4
8 Heat treatment of steel.....	6
9 Requirements for undercoats	6
10 Requirements for coatings	7
Annex A (Normative) Determination of coating thickness	10
Annex B (Normative) Adhesion tests	14
Annex C (Informative) Guidance notes	15

Foreword

ISO 2093:1986 Electroplated Coatings of Tin: Specifications and Test Methods (English version) shall be applied to modify the Standards.

This Standard is drafted in accordance with translation of ISO 2093:1986, This Standard has made the following modifications corresponding to ISO 2093:

--In accordance with usual practices of the existing series standards for coatings, "metallic coatings" shall be added before the name of Standard;

--Deleted the foreword of the International Standards;

--It is quoted Chinese standards adopting international standards to facilitate usage;

Guidance language of normative references is added;

Replaced "this International Standard" with "the Standard";

--Definition of "main surface" has been modified according to the quoted standard ISO2064:1996.

--Since ISO 9227 is replaced by ISO 3768, GB/T 10125 corresponding to ISO 9227 is applied as quoted standards.

The Standard replaces GB/T 12599-1990 Metallic Coatings--Electroplated Coatings of Tin

This standard, in comparison with GB / T 12599-1990, has the main changes as follows:

--It has supplemented the Introduction;

--It has deleted definition of the minimum thickness (Article 3.2 in the original version);

--Sequences and some contents in Chapter 5, 6, 7, 8, 9 and 10 have been adjusted.

--Appendix B and C are supplemented.

Annex A, Annex B and Annex C of the Standard are normative annex, while Annex C is informative annex.

This Standard was proposed by China Machinery Industry Federation.

The Standard is under the jurisdiction of the National Nonferrous Metals Standardization Technical Committee.

Drafting unit of this Standard: Wuhan Research Institute of Materials Protection, and Guangzhou Electric Apparatus Research Institute

Main drafters of the Standard: Jia Jianxin, He Shaoxin, Li Daxun, Xie Ruibing, Xiong Gang, Huang Sanbao.

The issuance situation of previous Standard editions replaced by the Standard is as follows:

——GB/T 12599-1990.

Metallic coatings--Electroplated coatings of tin--Specification and test methods

0 Introduction

This Standard specifies requirements for electroplated coatings of tin on fabricated metal articles to protect them from corrosion and to facilitate soldering.

Attention is drawn to legislative requirements that exist in many countries for tin coatings used in the food industry.

Annex C gives additional information as guidance to the user.

It is essential that the purchaser should state the information itemized in 4.1 and, if appropriate, 4.2. Specifying without this Standard is insufficient.

1 Scope

This International Standard specifies requirements for electroplated coatings of nominally pure tin on fabricated metal articles. The coatings may be dull or bright as electroplated or may be flow-melted by fusion after electroplating.

It does not apply to

- a) threaded components;
- b) tin-coated copper wire;
- c) coatings on sheet, strip or wire in unfabricated form, or on articles made from them;
- d) coatings on coil springs;
- e) coatings applied by chemical means (immersion, autocatalytic or "electroless");
- f) electroplating of steels with tensile strength greater than 1 000 MPa¹¹ (or of corresponding hardness), because such steels are subject to hydrogen embrittlement.



北京文心雕语翻译有限公司
Beijing Lancarver Translation Inc.

完整版本请在线下单/Order Checks Online for Full version

联系我们/or Contact:

TEL: 400-678-1309

QQ: 19315219 | Skype: Lancarver

Email : info@lancarver.com

<http://www.lancarver.com>

线下付款方式：

I. 对公账户：

单位名称：北京文心雕语翻译有限公司

开 户 行：中国工商银行北京学清路支行

账 号：0200 1486 0900 0006 131

II. 支付宝账户：info@lancarver.com

III. Paypal: info@lancarver.com

注: 付款成功后，请预留电邮，完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱，如需索取发票，下单成功后的三个工作日内安排开具并寄出，预祝合作愉快！

NOTE All documents on the store are in electronic Adobe Acrobat PDF format, there is not sell or ship documents in hard copy. Mail the order and payment information to info@lancarver.com, you will shortly receive an e-mail confirming your order.

