



SLOVENSKI STANDARD
SIST EN ISO 9453:2007

01-marec-2007

BUXca Yý U
SIST EN 29453:1998

Mehke spajke – Kemijske sestave in oblike (ISO 9453:2006)

Soft solder alloys - Chemical compositions and forms (ISO 9453:2006)

Weichlote - Chemische Zusammensetzung und Lieferformen (ISO 9453:2006)

Alliages de brasage tendre - Compositions chimiques et formes (ISO 9453:2006)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN ISO 9453:2006

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631e0297/sist-en-iso-9453-2007>

ICS:

25.160.50 Trdo in mehko lotanje Brazing and soldering

SIST EN ISO 9453:2007

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9453:2007

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

English Version

Soft solder alloys - Chemical compositions and forms (ISO
9453:2006)

Alliages de brasage tendre - Compositions chimiques et
formes (ISO 9453:2006)

Weichlote - Chemische Zusammensetzung und
Lieferformen (ISO 9453:2006)

This European Standard was approved by CEN on 22 September 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

This document (EN ISO 9453:2006) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2007, and conflicting national standards shall be withdrawn at the latest by April 2007.

This document supersedes EN 29453:1993.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 9453:2006 has been approved by CEN as EN ISO 9453:2006 without any modifications.

iteh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9453:2007](https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007)

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

**Soft solder alloys — Chemical
compositions and forms**

Alliages de brasage tendre — Compositions chimiques et formes

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9453:2007](https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007)

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9453:2007](https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007)

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

© ISO 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Chemical composition	2
5 Forms of delivery	2
6 Sampling and analysis	2
7 Marking, labelling and packaging	2
Annex A (informative) Comparison between alloy numbers in ISO 9453 and short names and chemical compositions according to IEC 61190-1-3	8
Bibliography	10

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 9453:2007](https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007)

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9453 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 12, *Soldering materials*.

This second edition cancels and replaces the first edition (ISO 9453:1990), which has been technically revised.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 12 via your national standards body. A complete listing of these bodies can be found at <http://www.iso.org>.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN ISO 9453:2007
<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

Introduction

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent concerning soft solder alloy compositions given in Table 3.

ISO takes no position concerning the evidence, validity and scope of this patent right.

The holder of this patent right has assured ISO that he/she is willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO. Information may be obtained from:

Cookson Electronics Assembly Materials Group
600 Route 440, Jersey City, NJ 07304, USA

Iowa State University Research Foundation, Inc.
310 Lab of Mechanics
Ames, Iowa 50011-2131, U.S.A.

Matsushita Electric Industrial Co., Ltd.
Matsushita IMP Building 20F 1-3-7, Shiromi, Chouh-ku, Osaka, 540-6319, Japan

Mitsui Mining & Smelting Co., Ltd.
Gate City Ohsaki-West Tower 19th Fl. 1-11-1 Osaki, Shinagawa-ku, Tokyo, 141-8584, Japan

Murata Manufacturing Co., Ltd.
Nagaokakyo-shi, Kyoto, 617, Japan

Senju Metal Industry Co., Ltd.
Senju Hashido-cho 23, Adachi-ku, Tokyo, 120-8555, Japan

Attention is drawn to the possibility that some of the elements of this document (in particular the alloy compositions) may be the subject of patent rights other than those identified above. ISO shall not be held responsible for identifying any or all such patent rights.

Any alloys which are currently believed to be subject to any restriction on use are denoted with footnote ^h in Table 3.

Patent rights vary between the countries of manufacture, sale, use and final destination; suppliers or users remain responsible for establishing the exact legal position relevant to their own situation.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 9453:2007

<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

Soft solder alloys — Chemical compositions and forms

1 Scope

This International Standard specifies the requirements for chemical composition for the following families of soft solder alloys:

- tin-lead, with and without antimony, bismuth, cadmium, copper, and silver;
- tin-antimony;
- tin-bismuth;
- tin-copper, with and without silver;
- tin-indium, with and without silver and bismuth;
- tin-silver, with and without copper and bismuth;
- tin-zinc, with and without bismuth.

It also includes an indication of the forms generally available.

SIST EN ISO 9453:2007
<https://standards.iteh.ai/catalog/standards/sist/35777074-7e83-4c53-8461-853d631c0297/sist-en-iso-9453-2007>

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3677, *Filler metal for soft soldering, brazing and braze welding — Designation*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

soft solder

metallic filler material used to join metallic parts, which has a melting temperature (liquidus) lower than that of the parts to be joined, usually lower than 450 °C, and which wets the parent metals

3.2

unit of product

unit used to define the requirements for marking soft solders, and which varies with the form of the solder

See Table 1.