



# SLOVENSKI STANDARD SIST EN ISO 10564:2001

01-februar-2001

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Soldering and brazing materials - Methods for the sampling of soft solders for analysis  
(ISO 10564:1993)

Zusätze zum Weich- und Hartlöten - Methoden zur Probenahme von Weichlötten für die  
Analyse (ISO 10564:1993)

Produits d'apport pour brasage tendre et brasage fort - Méthode d'échantillonnage des  
produits d'apport de brasage tendre pour analyse (ISO 10564:1993)

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Ta slovenski standard je istoveten z: EN ISO 10564:1997

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## ICS:

25.160.50      Trdo in mehko lotanje      Brazing and soldering

**SIST EN ISO 10564:2001**

**en**

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EUROPEAN STANDARD

EN ISO 10564

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 1997

ICS 25.160.50

Descriptors: See ISO document

English version

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sampling of soft solders for analysis  
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Produits d'apport pour brasage tendre et  
brasage fort - Méthode d'échantillonnage des  
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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of the International Standard from Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

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of an identical text or by endorsement, at the latest by July 1997, and conflicting national standards shall be withdrawn at the latest by July 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 10564:1993 has been approved by CEN as a European Standard without any modification.

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UNIVERSITY OF TWENTE

# INTERNATIONAL STANDARD

**ISO**  
**10564**

First edition  
1993-07-15

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## **Soldering and brazing materials — Methods for the sampling of soft solders for analysis**

**iTeh STANDARD PREVIEW**

*Produits d'apport pour brasage tendre et brasage fort — Méthode  
d'échantillonnage des produits d'apport de brasage tendre pour analyse*

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Reference number  
ISO 10564:1993(E)

## 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.

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.

International Standard ISO 10564 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Sub-Committee SC 12, *Soldering and brazing materials*.

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International Organization for Standardization

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# Soldering and brazing materials — Methods for the sampling of soft solders for analysis

## 1 Scope

This International Standard specifies methods for sampling a consignment of soft solder which is subdivided into batches and the procedures for the preparation of an analysis sample representative of each batch.

## 3 Principle

The procedures given in clause 4 are designed to produce an analysis sample representative of each batch of soft solder in the consignment.

## 4 Sampling

### 2 Definitions

For the purposes of this International Standard, the following definitions apply.

**2.1 soft solder:** Metallic filler material which is used to join metallic parts and which has a melting temperature (liquidus) lower than that of the parts to be joined, and usually lower than 450 °C.

**2.2 unit of product:** Item inspected in order to determine its classification as defective or non-defective.

**2.3 batch:** Collection of units of product, made from a single uniform melt.

**2.4 consignment:** Quantity of product, consisting of one or more batches, of the same grade delivered at the same time, by the supplier to the purchaser.

**2.5 batch sample:** One or more units of product selected at random from the batch and considered, in total, to be representative of the batch.

**2.6 test sample stick:** Stick of solder prepared by melting the whole of, or a representative fraction of, the batch sample and pouring it into a suitably shaped cast iron or aluminium mould.

**2.7 analysis sample:** Representative sample prepared from the test sample stick and used for the determination of the chemical composition.

### 4.1 Unit of product

The unit of product used for the sampling shall be as given in table 1.

**Table 1 — Units of product for various forms of solder**

Form of solder	Unit of product
Ingot, bar, slab, stick or rod	A single ingot, bar, slab, stick or rod
Wire	A single coil or reel
Wrought pre-forms and rings, pellets or powder	The individual packaged quantity

### 4.2 Selection of the batch sample

Select the batch sample as follows:

- where the batch consists of up to 4 units of product, select all the units;
- where the batch consists of over 4, up to and including 44 units of product, randomly select 4 units of product;
- where the batch consists of  $n$  units of product (where  $n$  is greater than 44), randomly select 0,1  $n$  units of product (to the nearest integer above 0,1  $n$ ).

### 4.3 Preparation of the test sample sticks from the batch sample

#### 4.3.1 General

Using the batch sample selected in accordance with 4.2, prepare test sample sticks by the method described in either 4.3.2 or 4.3.3, depending on the form in which the soft solder is supplied.

#### 4.3.2 Solder (cast or wrought) in ingot, slab, bar, stick or rod form

Melt the whole batch sample (4.2) in a clean iron or fire clay crucible and heat it to between 50 °C and 100 °C above the liquidus temperature of the alloy. Stir well and chill-cast test sample sticks, approximately 50 g to 100 g in mass and not more than 8 mm thick, in a cast iron or aluminium mould of the shape given in figure 1. If the batch sample mass is 50 g or less, then pour the whole of the melted sample into one of the cavities in the mould.

#### NOTES

1 The material from which the mould is made should be such that it does not cause contamination of the solder samples.

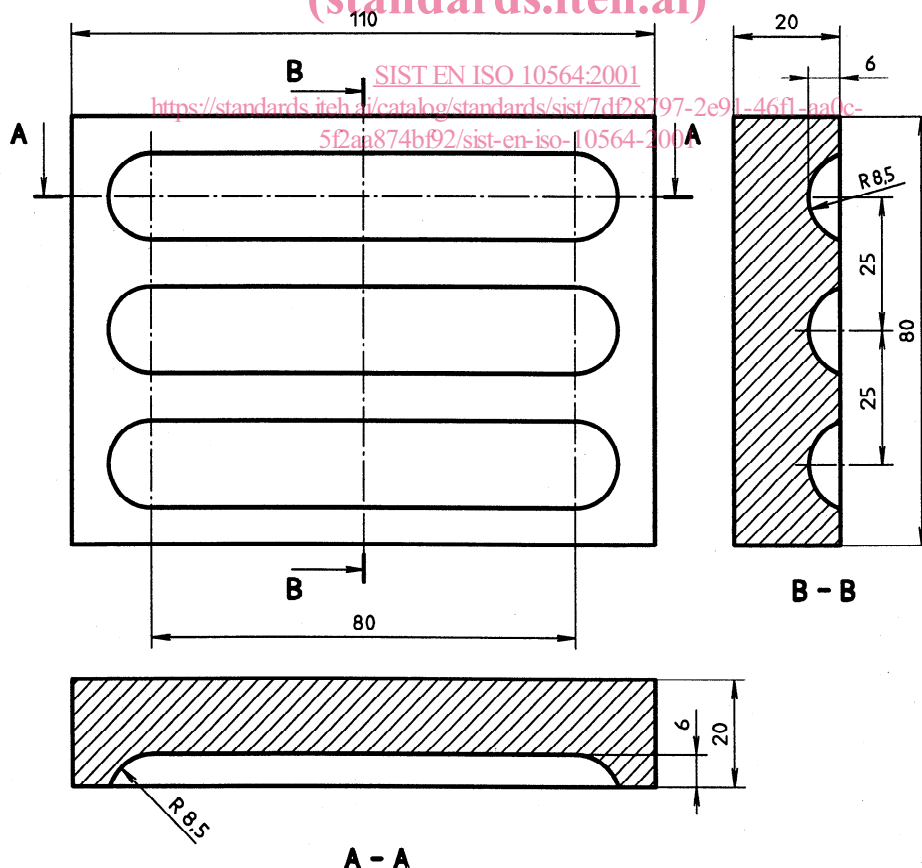
2 No flux is necessary when melting the batch sample, if the units of product are in the cast form. However, the dross should be scraped aside before casting the test sample sticks.

#### 4.3.3 Solder (wrought) in the form of wire, pellets, powder or pre-forms

From each unit of product in the batch sample (4.2) take, at random, a portion having a nominal mass of 10 g. Place all the portions taken to represent the batch into a fire clay crucible. Melt the aggregated portions under a thin layer of flux, such as palm oil, glycerol, rosin or paraffin wax, and heat the melt to between 50 °C and 100 °C above the liquidus temperature of the alloy. Stir well and chill-cast one test sample stick, approximately 50 g to 100 g in mass and not more than 8 mm thick, in a cast iron or aluminium mould of the shape given in figure 1, for every

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Dimensions in millimetres



NOTE — Material: Cast iron or aluminium.

Figure 1 — Mould for casting the test sample sticks