



SLOVENSKI STANDARD SIST EN ISO 4787:2022

01-februar-2022

Nadomešča:
SIST EN ISO 4787:2011

Laboratorijska oprema iz stekla in plastike - Instrumenti za volumetrična merjenja - Metode za preskušanje zmogljivosti in uporaba (ISO 4787:2021)

Laboratory glass and plastic ware - Volumetric instruments - Methods for testing of capacity and for use (ISO 4787:2021)

Laborgeräte aus Glas und Kunststoff - Volumenmessgeräte - Prüfverfahren und Anwendung (ISO 4787:2021)

Verrerie et matériel en plastique de laboratoire - Instruments volumétriques - Méthodes d'essai de la capacité et d'utilisation (ISO 4787:2021)

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Ta slovenski standard je istoveten z: EN ISO 4787:2021

ICS:

17.060	Merjenje prostornine, mase, gostote, viskoznosti	Measurement of volume, mass, density, viscosity
71.040.20	Laboratorijska posoda in aparati	Laboratory ware and related apparatus

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en,fr,de

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EUROPEAN STANDARD

EN ISO 4787

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2021

ICS 17.060

Supersedes EN ISO 4787:2011

English Version

Laboratory glass and plastic ware - Volumetric instruments - Methods for testing of capacity and for use (ISO 4787:2021)

Verrerie et matériel en plastique de laboratoire -
Instruments volumétriques - Méthodes d'essai de la
capacité et d'utilisation (ISO 4787:2021)

Laborgeräte aus Glas und Kunststoff -
Volumenmessgeräte - Prüfverfahren und Anwendung
(ISO 4787:2021)

This European Standard was approved by CEN on 20 November 2021.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 4787:2021) has been prepared by Technical Committee ISO/TC 48 "Laboratory equipment" in collaboration with Technical Committee CEN/TC 332 "Laboratory equipment" 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 June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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

This document supersedes EN ISO 4787:2011.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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

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Endorsement notice

The text of ISO 4787:2021 has been approved by CEN as EN ISO 4787:2021 without any modification.

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INTERNATIONAL
STANDARD

ISO
4787

Third edition
2021-11

**Laboratory glass and plastic ware —
Volumetric instruments — Methods
for testing of capacity and for use**

*Verrerie et matériel en plastique de laboratoire — Instruments
volumétriques — Méthodes d'essai de la capacité et d'utilisation*

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 48, *Laboratory equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 332, *Laboratory equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 4787:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- a) volumetric plastic ware has been included;
- b) new information on meniscus adjustment of convex meniscus has been added; namely, altered procedure "Upper edge of the graduation line is horizontally tangential to the highest point of meniscus" as compared to older procedure "Upper edge of the graduation line is horizontally tangential to the lowest point of the meniscus";
- c) improved figures for meniscus adjustment have been provided;
- d) [Table 1](#) has been improved;
- e) new [Table 2](#) for minimum requirements for the measurement devices has been added;
- f) new test room ambient conditions have been added;
- g) new information regarding repeatability and uncertainty has been added in [Annex E](#);
- h) [Formula \(C.1\)](#) has been changed to [Formula \(1\)](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 4787:2021(E)

Introduction

The International Standards for the individual volumetric instruments include clauses on the specification of capacity (volume); these clauses describe the method of manipulation in sufficient detail to determine the capacity without ambiguity. This document contains supplementary information.

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