

Laboratory glassware - Burettes

Laboratory glassware - Burettes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 385:2005 sisaldab Euroopa standardi EN ISO 385:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.06.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 385:2005 consists of the English text of the European standard EN ISO 385:2005.</p> <p>This document is endorsed on 22.06.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala:</p> <p>This International Standard provides metrological and construction requirements for an internationally acceptable series of burettes, suitable for general laboratory purposes.</p>	<p>Scope:</p> <p>This International Standard provides metrological and construction requirements for an internationally acceptable series of burettes, suitable for general laboratory purposes.</p>
---	---

ICS 17.060, 71.040.20

Võtmesõnad:

ICS 17.060; 71.040.20

English version

Laboratory glassware - Burettes (ISO 385:2005)

Verrerie de laboratoire - Burettes (ISO 385:2005)

Laborgeräte aus Glas - Büretten (ISO 385:2005)

This European Standard was approved by CEN on 14 April 2005.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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 385:2005) has been prepared by Technical Committee ISO/TC 48 "Laboratory glassware and related apparatus" 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 October 2005, and conflicting national standards shall be withdrawn at the latest by October 2005.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 385:2005 has been approved by CEN as EN ISO 385:2005 without any modifications.

INTERNATIONAL STANDARD

**ISO
385**

First edition
2005-04-15

Laboratory glassware — Burettes

Verrerie de laboratoire — Burettes



Reference number
ISO 385:2005(E)

© ISO 2005

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.

© ISO 2005

The reproduction of the terms and definitions contained in this International Standard is permitted in teaching manuals, instruction booklets, technical publications and journals for strictly educational or implementation purposes. The conditions for such reproduction are: that no modifications are made to the terms and definitions; that such reproduction is not permitted for dictionaries or similar publications offered for sale; and that this International Standard is referenced as the source document.

With the sole exceptions noted above, no other 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
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Basis of adjustment	2
4.1 Unit of volume	2
4.2 Delivery volume	2
4.3 Reference temperature	2
5 Types and classes of accuracy	2
5.1 Classes of accuracy	2
5.2 Types of burette	2
6 Maximum permissible errors	2
7 Material	3
8 Construction	3
8.1 Dimensions	3
8.2 Top of burette	4
8.3 Stopcocks and similar devices	4
8.4 Stopcock leakage	5
8.5 Delivery jet	5
8.6 Delivery time	5
8.7 Waiting time	6
9 Graduation, figuring and patterns	6
9.1 Graduating patterns	6
9.2 Position of graduation lines	6
9.3 Marking of graduation lines	6
10 Setting of the meniscus	6
11 Markings	7
12 Visibility of graduation lines, numbers and inscriptions	7
Annex A (normative) Burettes for which no waiting time is specified	8
Annex B (normative) Burettes for which a 30 s waiting time is specified	10
Bibliography	12

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 385 was prepared by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, Subcommittee SC 6, *Laboratory and volumetric ware*.

This first edition cancels and replaces ISO 385-1:1984, ISO 385-2:1984 and ISO 385-3:1984, which have been technically revised and combined into one document.

Laboratory glassware — Burettes

1 Scope

This International Standard provides metrological and construction requirements for an internationally acceptable series of burettes, suitable for general laboratory purposes.

The details specified are in accordance with the principles of design and construction of volumetric glassware given in ISO 384.

NOTE For piston burettes, see ISO 8655-3.

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 384:1978, *Laboratory glassware — Principles of design and construction of volumetric glassware*

ISO 719, *Glass — Hydrolytic resistance of glass grains at 98 °C — Method of test and classification*

ISO 4787:1984, *Laboratory glassware — Volumetric glassware — Methods for use and testing of capacity*

3 Terms and definitions

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

3.1

delivery volume

volume of liquid discharged from a volumetric instrument, such as a burette

NOTE Due to retention of liquid on the inner surface of the volumetric instrument, the volume of liquid delivered is not identical with the volume of liquid contained by the volumetric instrument.

3.2

delivery time

time required for the descent of the liquid meniscus from the zero line to the lowest graduation line of the volumetric instrument

3.3

waiting time

time to be observed after apparent completion of the liquid delivery of the volumetric instrument and before the final reading of the delivered volume is taken

NOTE A waiting time applies for burettes Class AS (see 5.2).