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## Laboratory glassware — Pyknometers

*Verrerie de laboratoire — Pycnomètres*



## 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 3.

International Standard ISO 3507 was prepared by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, Subcommittee ISO 4, *Density measuring instruments*.

This second edition cancels and replaces the first edition (ISO 3507:1976) by incorporating the following changes:

- a) the title has been modified;
- b) Gay-Lussac pyknometers of 1 ml, 2 ml, 5 ml and 100 ml have been added;
- c) Reischauer pyknometers of 10 ml and 100 ml have been added;
- d) a Hubbard pyknometer of 50 ml has been added;
- e) pyknometers with ground-in thermometer and capillary side tube have been added.

# Laboratory glassware — Pyknometers

## 1 Scope

This International Standard specifies requirements for a series of pyknometers for general laboratory use for the determination of the densities of liquids.

Specialized pyknometers for use with particular products, or otherwise not in common use, are excluded. Sufficient details to define such pyknometers should be included in International Standards which specify or describe their use.

A device suitable for adjustment of the liquid level in the neck of the Reischauer pyknometer is shown in annex A.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 383, *Laboratory glassware — Interchangeable conical ground joints*.

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

ISO 386, *Liquid-in-glass laboratory thermometers — Principles of design, construction and use*.

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

ISO 3585, *Borosilicate glass 3.3 — Properties*.

## 3 Basis of adjustment

### 3.1 Unit of volume

The unit of volume shall be the millilitre (ml), which is equivalent to the cubic centimetre (cm<sup>3</sup>).

**NOTE** The term millilitre (ml) is commonly used as a special name for the cubic centimetre (cm<sup>3</sup>), in accordance with a decision of the Twelfth Conférence Générale des Poids et Mesures. The term millilitre is acceptable, in general, for references in International Standards to capacities of volumetric glassware and it is used in this International Standard.