
**Laboratory glassware — Boiling flasks
with conical ground joints**

*Verrerie de laboratoire — Fioles coniques et ballons à joint conique
rodé*



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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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is ISO/TC 48, *Laboratory equipment* in collaboration with CEN/TC 332, *Laboratory equipment*.

This third edition cancels and replaces the second edition (ISO 4797:2004), which has been technically revised to include the following changes:

- round-bottom flasks with nominal volumes of 3 l, 5 l, and 20 l have been added;
- overall heights of some round-bottom flasks of Series 1 ([Table 3](#)) have been modified;
- requirements for thermal shock endurance have been added.

Laboratory glassware — Boiling flasks with conical ground joints

1 Scope

This International Standard specifies requirements for an internationally acceptable series of boiling flasks with conical ground joints for general laboratory purposes.

2 Normative references

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

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

ISO 718, *Laboratory glassware — Thermal shock and thermal shock endurance — Test methods*

ISO 1773, *Laboratory glassware — Narrow-necked boiling flasks*

ISO 3585, *Borosilicate glass 3.3 — Properties*

3 Types

The following three types of boiling flasks with conical ground joints are specified:

- a) conical flasks;
- b) flat-bottom flasks;
- c) round-bottom flasks.

4 Series of capacities

Two series are specified for each type of boiling flask with conical ground joints. The series differ in height and in selection of joint sizes. It is recommended that, in national standards, one of these series is chosen.

5 Material

Boiling flasks shall be made from borosilicate glass 3.3 in accordance with ISO 3585, and shall be free from visible defects which might affect performance and free from any internal stress which would impair the performance of the flask.

6 Dimensions

The external diameter of body of round-bottom flasks and flat-bottom flasks, the external diameter of body at the widest point of conical flasks and the minimum wall thickness shall comply with the dimensions specified in ISO 1773.

The nominal overall height of the boiling flasks with conical ground joints shall be as specified in [Table 1](#), [Table 2](#) and [Table 3](#).