INTERNATIONAL STANDARD

ISO 9058

Second edition
2008-03-01

Glass containers — Standard tolerances for bottles

Récipients en verre — Tolérances standards pour bouteilles

Reference number
ISO 9058:2008(E)

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

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 9058 was prepared by Technical Committee ISO/TC 63, *Glass containers*.

This second edition cancels and replaces the first edition (ISO 9058:1992), which has been technically revised.

Glass containers — Standard tolerances for bottles

1 Scope

This International Standard specifies tolerances for glass bottles of circular cross-section and nominal capacity from 50 ml to 5 000 ml.

NOTE This International Standard is based on CE.T.I.E [Centre technique international de l'embouteillage et du conditionnement (International Technical Centre for Bottling and Packaging), 112-114, rue La Boétie, 75008 Paris, France, http://www.cetie.org] data sheet DT 2 (1996) and EC Council Directive 75/107/EEC.

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 7348:1992, *Glass containers — Manufacture — Vocabulary*

ISO 9009:1991, *Glass containers — Height and non-parallelism of finish with reference to container base — Test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7348 and ISO 9009 and the following apply.

3.1
leading body diameter
greatest horizontal cross-sectional dimension of a container

4 Tolerances

4.1 Capacity tolerance

The actual capacity error (tolerance) shall be in accordance with the values specified in Table 1.

Table 1 — Capacity tolerances

Nominal capacity, V_n	**Maximum permissible error of the actual capacity**	
ml	% **of** V_n	ml
$50 < V_n \leqslant 100$		3
$100 < V_n \leqslant 200$	3	
$200 < V_n \leqslant 300$		6
$300 < V_n \leqslant 500$	2	
$500 < V_n \leqslant 1\,000$		10
$1\,000 < V_n \leqslant 5\,000$	1	

The maximum permissible error in the brimful capacity shall be the same as the maximum permissible error in the corresponding nominal capacity.

4.2 Nominal height tolerance, T_H

The nominal height tolerance, in millimetres, shall be calculated using the following formula:

$$T_H = \pm (0{,}6 + 0{,}004H)$$

where H is the nominal height, in millimetres.

4.3 Nominal leading diameter tolerance, T_D

The nominal leading body diameter tolerance, in millimetres, shall be calculated using the following formula:

$$T_D = \pm (0{,}5 + 0{,}012D)$$

where D is the nominal leading body diameter, in millimetres.

4.4 Verticality tolerance, T_V (vertical axis deviation tolerance)

The verticality tolerance, in millimetres, shall be calculated using the following formulae:

a) for a nominal height $H \leqslant 120$ mm:

$$T_V = 1{,}5 \text{ mm}$$

b) for a nominal height $H > 120$ mm:

$$T_V = 0{,}3 + 0{,}01H$$

where H is in millimetres.

4.5 Tolerance on non-parallelism of finish with reference to container base

The tolerance on non-parallelism of finish with reference to container base (or the slope of finish) shall be in accordance with the values specified in Table 2.

Table 2 — Tolerance on non-parallelism of finish with reference to container base

Dimensions in millimetres

Nominal diameter of finish	Tolerance
$\leqslant 20$	0,45
> 20 and $\leqslant 30$	0,6
> 30 and $\leqslant 40$	0,7
> 40 and $\leqslant 50$	0,8
> 50 and $\leqslant 60$	0,9
> 60	1

ICS 55.100

Price based on 2 pages