

---

# International Standard



# 7712

---

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

---

## Laboratory glassware — Disposable Pasteur pipettes

*Verrerie de laboratoire — Pipettes Pasteur à usage unique*

First edition — 1983-12-15

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO 7712:1983](https://standards.iteh.ai/catalog/standards/sist/bf94b2d9-af50-41f9-a0e6-c1de8a6d22c7/iso-7712-1983)

<https://standards.iteh.ai/catalog/standards/sist/bf94b2d9-af50-41f9-a0e6-c1de8a6d22c7/iso-7712-1983>

---

UDC 542.3 : 531.732

Ref. No. ISO 7712-1983 (E)

Descriptors : glassware, laboratory glassware, pipettes, dimensions, dimensional tolerances, specifications, designation, packages, marking.

Price based on 2 pages

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7712 was developed by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, and was circulated to the member bodies in July 1982.

It has been approved by the member bodies of the following countries:

Australia	India	Romania
Brazil	Italy	South Africa, Rep. of
Czechoslovakia	Korea, Rep. of	United Kingdom
France	Netherlands	USA
Germany, F.R.	Poland	USSR
Hungary	Portugal	

No member body expressed disapproval of the document.

# Laboratory glassware — Disposable Pasteur pipettes

## 1 Scope and field of application

This International Standard specifies requirements for the most commonly used sizes of glass disposable Pasteur pipettes.

The pipettes are uncalibrated and are intended for the transfer and replicate dispensing of drops of solutions, and suspensions of biological materials.

## 2 Reference

ISO 8417, *Laboratory volumetric instruments — Principles of design and construction of disposable volumetric articles*.<sup>1)</sup>

## 3 Definition

**disposable Pasteur pipettes**: Pasteur pipettes intended to be used once only and then discarded.

## 4 Sizes

### 4.1 General

Two sizes of pipette are specified, details of which are given in the table, and the general form of the pipette is illustrated in the figure.

### 4.2 Dimensions and tolerances

Nominal dimensions are specified in the table and manufacturers shall select values within the specified range. The dimensions of pipettes supplied in any one batch shall not differ from the nominal value for the batch by more than the following tolerances:

length:  $\pm 3\%$

wall thickness:  $\pm 10\%$

NOTE — Actual manufacturing techniques normally result in tolerances tighter than those specified in the table.

## 5 Designation

The pipettes specified shall be designated by a number representing the nominal overall length of the pipette, expressed in millimetres, i.e. sizes 145 and 230.

## 6 Construction

### 6.1 General

The pipette shall be of sufficient strength and uniformity of wall thickness to withstand normal usage and transport when packed as specified in 8.1 and 8.2.

### 6.2 Material

The pipettes shall be made of glass of suitable chemical and thermal properties. They shall be as free as possible from visible defects, and shall be reasonably free from internal stress.

### 6.3 Resistance to sterilization

The pipette shall be suitable for, and not adversely affected by, one of the following methods:

- exposure to dry heat for  $(60 \pm 2)$  min at a temperature of  $(160 \pm 1)^\circ\text{C}$ ;
- exposure to saturated steam, in an autoclave, either for at least 20 min at  $(121 \pm 1)^\circ\text{C}$  or for at least 3,5 min at  $(134 \pm 1)^\circ\text{C}$ .

### 6.4 Top of pipette

The top of the pipette shall be finished square with the axis of the pipette, and shall be fire-polished.

### 6.5 Delivery jet

The external diameter of the delivery jet shall taper sharply from the shoulder to form a long fine jet (see the figure) for reaching into test tubes of small internal diameter.

The tip of the jet shall be cut square with the axis.

1) At present at the stage of draft.

6.6 Constriction

A constriction, at a distance specified in the table from the top of the pipette, shall be provided, and this shall be adequate to retain a plug of fibrous material such as non-absorbent cotton wool.

NOTE — If the pipettes are supplied with plugs, the material and quality of the plugs should be agreed between the purchaser and the vendor.

7 Cleanliness

The pipette shall be supplied clean and free from visible dirt and stains.

8 Packaging and marking

8.1 Pipettes shall be packed in a stout carton each containing preferably 250 pipettes, and these cartons may be grouped in outer cartons.

8.2 The packaging shall afford adequate protection against the normal hazards of handling, transport and storage.

8.3 Neither carton nor packing material shall be so friable as to contaminate the pipettes during transport or handling.

8.4 Each carton of 250 pipettes (see 8.1) and any outer carton shall be clearly marked with the following information :

- a) manufacturer's name and/or mark;
- b) product description, e.g. disposable Pasteur pipettes, size 145;
- c) number of pipettes in package;
- d) batch number or date of manufacture;
- e) the number of this International Standard, i.e. ISO 7712, or the number of the corresponding national standard.

Table — Nominal dimensions of glass disposable Pasteur pipettes

Size designation	Overall length	Body length	Body external diameter	Body wall thickness	Distance of constriction from top	Jet tip diameter	
	A mm	B mm	mm	mm	C mm	external mm	internal mm
145	145 to 150	85 to 100	6,5 to 8	0,5 to 0,6	20 to 30	1,2 to 1,8	0,7 to 1,5
230	225 to 230						

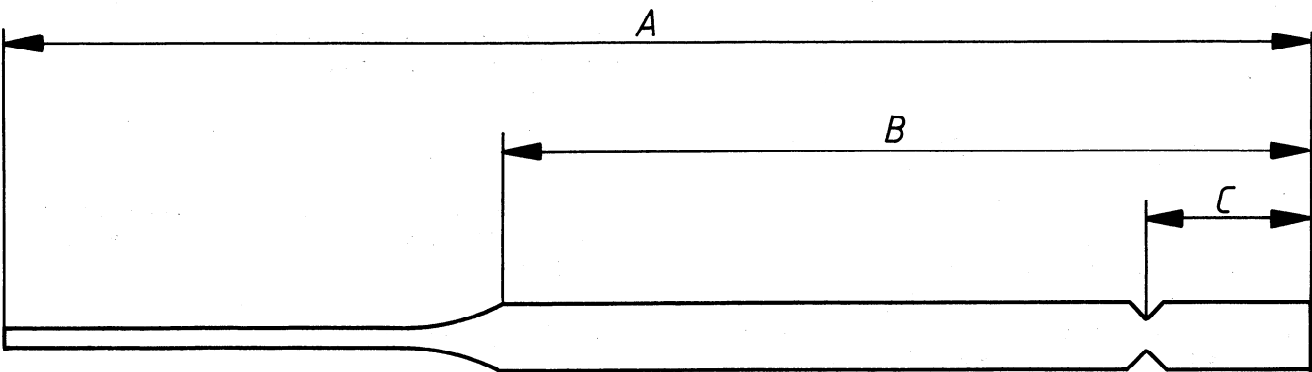


Figure — General form of glass disposable Pasteur pipettes