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# International Standard



# 7712

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## Laboratory glassware — Disposable Pasteur pipettes

*Verrerie de laboratoire — Pipettes Pasteur à usage unique*

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

## 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.

<sup>1)</sup> At present at the stage of draft.