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**INDUSTRY STANDARD OF THE
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JY/T 0444-2011

**Glass jars for teaching
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some elements of this standard may involve patents. The issuer of this standard should not be held responsible for identifying these patents.

This standard was proposed by the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard is under the jurisdiction of the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard was drafted. Sichuan Longchang Glass Instrument Factory, Zhejiang Educational Technology Center, Sichuan Ziyang Glass Instrument Factory, Sichuan Scientific industry teaching equipment limited liability company.

1 Scope

This standard specifies the classification and nomenclature of lower mouth bottles, technical requirements, test methods, inspection rules, packaging, transportation, and storage.

This standard applies to teaching utensils and valveless bottles.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB 191-2008 packaging storage and transportation pictogram GB/T 2828.1-2003 Counting sampling inspection procedures. Part 1. Sampling plan for batch inspection according to acceptance quality limit (AQL) JY 0001-2003 General quality requirements for teaching instruments and equipment products JY 0002 Inspection rules for teaching instruments and equipment products JY 0026-1991 teaching instrument and teaching equipment product model naming method JY/T 0423-2011 General quality requirements and test methods of teaching glass instruments

3.1 Product Classification

According to the capacity, it is divided into 2500mL, 5000mL, 10000mL, and 20000mL. According to the structure, it is divided into valved and valveless.

3.2 Model designation

The model name of the product is in accordance with JY 0026-1991.

The name of the lower mouth bottle is.

L-XKP-JF/WF-2500

Product specifications (capacity), unit. mL Product feature code, with or without valve
Product name Pinyin prefix, lower mouth bottle Product model classification code, glass instrument Model example.

L-XKP-JF-2500. Bottle with valve (faucet) with a capacity of 2500mL.

L-XKP-WF-2500. Valveless lower mouth bottle with a capacity of 2500mL.

4.1 Materials

It should be made of transparent soda lime glass without obvious yellow-green.

4.2 Dimensions

The external dimensions and tolerances of the lower mouth bottles of various specifications shall conform to Table 1, and the dimensions are shown in Figures 1 and 2.

Table 1 Dimensions and tolerances of the lower bottle

Part code 2500mL 5000mL 10000mL.20000mL Bottle height H 1 270 ± 8 330 ± 10 410 ± 13 488 ± 15 Bottle diameter D 1 142 ± 5 182 ± 5 212 ± 5 270 ± 5 Bottle mouth diameter d 1 37 ± 2 47 ± 2 58 ± 3 58 ± 3 Bottle neck and small diameter of stopper d 3 4 ± 1 4 ± 1 4 ± 1 4 ± 1 Lower diameter d 2 29 ± 2 29 ± 2 34 ± 2 34 ± 2 Grinding height of lower mouth h 1 30 ± 2 30 ± 3 35 ± 3 35 ± 3 Center height of bottom mouth h 2 35 ± 3 35 ± 5 35 ± 5 35 ± 5 Valve outlet diameter d 4 6 ± 1 8 ± 1 8 ± 1 8 ± 1 Plug valve center distance b 1 60 ± 5 70 ± 5 70 ± 5 70 ± 5 Valve length b 2 120 ± 10 140 ± 10 140 ± 10 140 ± 10 Standard frosted joint 29/H 29/H 34/H 34/H Piston plug bore diameter d 6 8 8 8 Body wall thickness S 1 ≥ 2.0 ≥ 2.3 ≥ 2.7 ≥ 3.0 Bottle bottom thickness S 2 ≥ 3.0 ≥ 3.5 ≥ 4.1 ≥ 4.5

Figure 1 Bottle with valve (faucet)

Figure 2 Valveless lower mouth bottle

4.3 Appearance

4.3.1

The appearance defects allowed are shown in Table 2.

Table 2 Permitted appearance defects

Serial number	defect	2500mL	5000 mL	10,000 mL	20,000 mL	Maximum diameter mm	Quantity
1	bubble	Circle ≤ 6	≤ 2	≤ 7	≤ 2	Ellipse ≤ 12	≤ 2 ≤ 14
2	nodules	≤ 3	≤ 3	≤ 3.5	≤ 4		

3 Stones ≤ 2 ≤ 2 ≤ 2.5 ≤ 2

4 Watermark ≤ 6 ≤ 2 ≤ 8 ≤ 2

5 Allowable total number of bubbles, stones, nodules, and water spots ≤ 9

6 Iron filings ≤ 1.5 ≤ 2 ≤ 1.5 ≤ 2

7 Shoulder collapse depth ≤ 5 Shoulder collapse depth ≤ 6 8 necking depth ≤ 7 necking depth ≤ 12

9 Cap closure suture height ≤ 1.5 , no sharp edges suture height ≤ 1.5 , no sharp edges

10 8 single stripes, 12 not concentrated, not concentrated

4.3.2 The appearance defects that should not exist shall comply with JY/T 0423-2011 Section 5.1.1.

4.3.3 The width of light spots and coarse sand prints should be less than 6mm, and the length should be less than 1/2 of the plug height. Only no more than 2 should be allowed.

The lower part.

4.3.4 The center deviation between the small hole of the stopper and the small hole of the bottleneck should be less than 0.5mm.

4.3.5 The uniformity of wall thickness shall comply with JY/T 0423-2011 Section 4.1.1.2.

4.4 Matte

4.4.1 The frosted surface of the valveless, valved-down bottle and the valved-down bottle (faucet bottle) should be fine-ground, and the frosted surface should be even and fine.

The height of the frosted surface of the mouth is not less than 92% of the nominal size, and light spots and rough sand marks less than 6mm in width and less than 1/2 of the plug height should only allow 2 it should not be concentrated in the middle and lower part of the neck; the lower mouth is rough ground (repeated from 4.3.3)), the spot width should be less than 10mm, and the length should be less than the plug height.

4.4.2 The joints and pistons of the lower valve bottle (faucet bottle) should be conical frosted standard mouth.

4.5 Chemical stability should meet water resistance HGB level 1, acid resistance H1 level, alkali resistance A2 level.

4.6 Internal stress

The internal stress should not be greater than 160nm/cm.

4.7 Adhesiveness

4.7.1 The lower bottle with valve shall not be lower than the second grade.

4.7.2 Valveless lower spout bottles shall not be lower than Class III.

4.8 Environmental test the environmental test shall be in accordance with Chapter 8 of JY/T 0423-2011.

5 Test method

5.1 Dimensions are measured with a vernier caliper of 0.02 mm and a steel ruler with a graduation value of 0.5 mm, which shall meet the requirements of 4.2 of this standard. Exterior Disadvantages The length of the test with a reading microscope should meet the corresponding requirements of this standard.

5.2 Wall thickness and uniformity shall be tested in accordance with JY/T 0423-2011, Section 4.1.1.2, and shall meet the requirements of 4.2 and 4.3.5 of this standard.

5.3 Water resistance, acid resistance, and alkali resistance are tested in accordance with JY/T 0423-2011 Section 6.5.2, which shall meet the requirements of 4.5 of this standard.

5.4 The internal stress shall be tested in accordance with JY/T 0423-2011 Section 6.1.2 and shall meet the requirements of 4.6 of this standard.