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JY

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JY/T 0430-2011

**Teaching glassware
(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, technical requirements, test methods, inspection rules, packaging, transportation, and storage of watch glass.

This standard applies to watch glass.

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 acceptance procedure Part 1. Sampling plan for batch inspection for retrieval by 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

Divided into phi25mm, phi35mm, phi45mm, phi60mm, phi80mm, phi90mm, phi100mm, phi120mm, phi150mm, Ten specifications of phi 180mm.

3.2 Model Nomenclature

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

The model name of the watch glass is.

L - BMM - Y - 25

Product specifications (outer diameter), unit. mm Product feature code, round Product name Pinyin prefix, watch glass Product model classification code, glass instrument Model example.

L-BMM-Y-60. Round watch glass with outer diameter phi 60mm.

4.1 Materials

It should be made of colorless transparent borosilicate glass with an average linear thermal expansion coefficient of not more than $4.0 \times 10^{-6} \text{K}^{-1}$.

4.2 Specifications

Specifications, dimensions and tolerances shall conform to Table 1 and Figure 1.

Table 1 Dimensions and tolerances in millimeters

Part

name

Specifications and tolerances phi 25 phi 35 phi 45 phi 60 phi 80 phi 90 phi 100 phi 120 phi 150 phi 180

1 Dish diameter D 25 ± 2 35 ± 2 45 ± 3 60 ± 3 80 ± 3 90 ± 3 100 ± 4 120 ± 5 150 ± 5 180 ± 5
5 Dish surface Curvature radius R 40 ± 3 50 ± 3 60 ± 3 60 ± 3 75 ± 3 105 ± 5 105 ± 5 135 ± 5 160 ± 5 160 ± 5

Figure 1 Watch glass

4.3 Appearance

The allowed appearance defects are shown in Table 2.

Table 2 Permitted appearance defects

Serial number defect Specifications phi 25 ~ phi 60 Specifications phi 80 ~ phi 120 Specifications phi 150 ~ phi 180 Maximum diameter mm Quantity Maximum diameter mm Quantity Maximum diameter mm Quantity 1 bubble 2 3 3 3 4 3 2 nodules 1 2 1 3 1 4

3 Stones 0.5 1 0.8 1 1 1 Air bubbles, nodules, stones Allowed total ≤ 4 ≤ 5 ≤ 6 5 2 stripes, should not be concentrated 6 maximum diameter of chipping notch $\leq 1 \text{mm}$, 1

4.4 The appearance defect that should not exist should conform to JY/T 0423-2011 Section 5.1.1.

4.5 Dish Mouth

The mouth of the dish should be smoothed and polished.

4.6 Wall thickness uniformity

The thickness ratio should not be greater than 5. 2.

4.7 Internal stress

The internal stress should not be greater than 180 nm/cm.

4.8 Chemical stability

Should meet water resistance HGB level 1, acid resistance H1 level, alkali resistance A2 level.

4.9 Thermal shock

The thermal shock resistance (quenching temperature difference) should not be lower than 180 ° C.

4.10 Environmental test items

Should be in accordance with JY/T 0423-2011 Chapter 8.

5 Test method

5.1

The average linear thermal expansion coefficient shall be tested in accordance with JY/T 0423-2011 Section 6.4.2 and shall meet the requirements of 4.1 of this standard.

5.2

Dimensions are measured with a vernier caliper with a division value of 0.02 mm and a steel ruler with a division value of 0.5 mm, which shall meet the requirements of 4.2 of this standard.

begging. The length of the appearance defect shall be tested with a reading microscope and shall meet the corresponding requirements of this standard.

5.3

The wall thickness and uniformity shall be tested in accordance with JY/T 0423-2011 Section 4.1.3 and shall meet the requirements of 4.2 and 4.6 of this standard.