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

JY/T 0431-2011

**Glass tube and glass rod
(English Translation)**

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Table of Contents

Foreword	
1 Scope	
2 Normative references	
3 Classification and naming	
3.1 Product Classification	
3.2 Model Nomenclature	
4 Requirements	
4.1 Materials	
4.2 Dimensions	
4.3 Appearance	
4.4 Chemical stability	
4.5 Internal stress	
4.6 Environmental test	
5 Test method	
6 Inspection rules	
6.1 Inspection classification	
6.2 Inspection items and methods	
6.3 Lot rules and sampling methods	
6.4 Non-conformance determination	
6.5 Review rules	
6.6 Quality supervision inspection	
7 Marking, packaging, transportation and storage	
7.1 Signs	
7.2 Packaging, transportation and storage	

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 glass tubes and glass rods.

And so on.

This standard applies to teaching glass tubes and glass rods.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. 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 by diameter. glass tube $\phi 5\text{mm} \sim \phi 6\text{mm}$, $\phi 7\text{mm} \sim \phi 8\text{mm}$; glass rod $\phi 5\text{mm} \sim \phi 6\text{mm}$, $\phi 7\text{mm} \sim \phi 8\text{mm}$.

3.2 Model Nomenclature

The product models of glass tubes and glass rods are named according to the provisions of JY 0026-1991.

Models of glass tubes and rods are named.

L - BG/BB - Y - 3

Product specifications (diameter), unit. mm Product feature code, cylindrical Product name Pinyin prefix, glass tube/glass rod Product model classification code, glass instrument

Model example.

L-BG-Y-5. Cylindrical glass tube with a diameter of phi 5mm.

4.1 Materials

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

4.2 Dimensions

Dimensions and tolerances. The glass rod should conform to Table 1, and the symbols are shown in Figure 1; the glass tube should conform to Table 2, and the labels are shown in Figure 2.

Table 1 Dimensions and tolerances in millimeters

Serial number name code specifications, dimensions and tolerances

1 Glass rod diameter D phi 5 ~ phi 6 phi 7 ~ phi 8

2 Glass rod length L 300 ± 30 300 ± 30

Table 2 Dimensions and tolerances in millimeters

Serial number name code specifications, dimensions and tolerances

1 Glass tube diameter D phi 5 ~ phi 6 phi 7 ~ phi 8

2 Glass tube wall thickness S > 0.8 > 0.8

3 Glass tube length L 500 ~ 600

Figure 1 Glass rod

Figure 2 Glass tube

4.3 Appearance

4.3.1

Appearance defects allowed. nodules. the maximum diameter should be less than 2mm and not more than 5; stones. the maximum diameter should be less than 1.5mm, should not be more than 3; the total number of appearance defects allowed should not be more than 6.

4.3.2

The appearance defects that should not exist shall be in accordance with JY/T 0423-2011 Section 5.1.1.

4.3.3

Both ends of glass rods and glass tubes should be flat, and both ends of glass rods should be inverted.

4.4 Chemical stability

It should meet the water resistance HGB level 1, acid resistance H1 level, and alkali resistance A2 level.

4.5 Internal stress

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

4.6 Environmental test

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

5 Test method

5.1

Dimensions and wall thickness shall be measured with a vernier caliper with a division value of 0.02mm and a steel ruler with a division value of 0.5mm, which shall conform to this standard.

Requirements of 4.2. The length of the appearance defect shall be tested with a reading microscope and shall meet the corresponding requirements of this standard.

5.2

The wall thickness of glass tube shall be tested in accordance with JY/T 0423-2011 Section 4.1.2 and shall comply with 4.2 of this standard.

5.3

Water resistance, acid resistance and alkali resistance are tested according to Article 6.5.5 of JY/T 0423-2011, and they shall meet the requirements of 4.4 of this standard.

5.4

The internal stress shall be in accordance with JY/T 0423-2011 Section 6.1.2 and shall comply with 4.5 of this standard.

5.5

Material test shall be in accordance with Article 7.2 of JY/T 0423-2011 and shall comply with 4.1 of this standard. It should not be colored.

5.6

The remaining sensory tests shall meet the corresponding requirements of this standard.

5.7

The environmental test shall be in accordance with Chapter 8 of JY/T 0423-2011 and shall comply with 4.6 of this standard.