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

JY/T 0451-2011

**Teaching glass instrument glass evaporation dish
(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 glass evaporation dishes, technical requirements, test methods, inspection rules, packaging, transportation, storage, etc.

Content.

This standard applies to teaching glass evaporation dishes.

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 outer diameter, it is divided into 60mm, 90mm, 120mm, and 150mm specifications. According to the shape of the bottom, it is divided into flat-bottomed evaporator and round-bottomed evaporator.

3.2 Model designation

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

The model of the evaporation dish is named.

L - ZFM - P/Y - 60

Product specifications (outer diameter), unit. mm Product feature code, flat/round bottom
Product name Pinyin prefix, evaporation dish Product model classification code, glass
instrument Model example.

L-ZFM-Y-60. Round bottom evaporation dish with outer diameter of phi60mm

4 Terms and definitions

The following terms and definitions apply to this document.

Material heap

Spherical particles formed when the main body and the residual material are separated too slowly during flame cutting in the manufacture of glassware.

Melt smooth

Heat the edge of the mouth of the glassware to smooth the glass after local melting.

5.1 Materials

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

5.2 Dimensions

The overall dimensions and tolerances of the various types of evaporation pans should conform to Table 1, and the dimensions are shown in Figures 1 and 2.

Table 1 Dimensions and tolerances in millimeters

Dimensions	Dish mouth diameter D	Dish bottom diameter D1	Dish height H	Wall thickness S
60	60 ± 3	30 ± 3	$30 > 1$	90 ± 3.5
120	120 ± 4.5	60 ± 3	60 ± 5	120 ± 4.5
150	150 ± 5	75 ± 3	75 ± 5	150 ± 5

Figure 1 Round bottom evaporation dish

Figure 2 Flat bottom evaporation dish

5.3 Appearance

5.3.1

The appearance defects allowed in the evaporating dish shall conform to Table 2.

Table 2 Permitted appearance defects

Defect name

60mm, 90mm, 120mm, 150mm Maximum diameter mm Quantity Maximum diameter mm
 Quantity Bubbles ≤ 3 ≤ 2 ≤ 4 ≤ 2 Nodule ≤ 1.5 ≤ 2 ≤ 2 ≤ 2 Stone ≤ 0.8 1 ≤ 1 1 Total
 number of air bubbles, nodules, and stones allowed ≤ 3 Total number of air bubbles,
 nodules, and stones allowed ≤ 4 Single stripes ≤ 3 , should not be concentrated ≤ 4 ,
 should not be concentrated

5.3.2

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

5.3.3

The melting gap at the edge of the evaporation dish should not be greater than 3mm, and the stockpile should not be greater than twice the wall thickness.

5.3.4

Oral treatment should comply with JY/T 0423-2011 Section 5.3.

5.3.5

The wall thickness ratio is not greater than 2. 1.

5.4 Internal stress

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

5.5 Chemical stability

Should meet water resistance HGB level 1, acid resistance level 1, alkali resistance level 2.

5.6 Thermal shock

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

5.7 Environmental test

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

6 Test method

6.1

The average linear thermal expansion coefficient shall be tested in accordance with JY/T 0423-2011 No. 6.4.2 and shall meet the requirements of 5.1 of this standard.