ICS 77.180
CCS Q 51

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 26279-2026

Replacing GB/T 26279-2010

Graphite crucibles

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Issued on: May 25, 2026 **Implemented on: December 1, 2026**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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5.1 Specifications and Models

5.1.1 Usage volume coefficients for Class I and Class II graphite crucibles To meet the needs of graphite crucible use and practical safe operation, the volume coefficient of a typical graphite crucible should be 0.62-0.05-0.04.For irregularly shaped graphite crucibles... The volume coefficient for the use of the crucible shall be determined by agreement between the supplier and the buyer.

5.1.2 Specifications and Models of Graphite Crucibles The specifications and models of graphite crucibles shall be indicated in accordance with the provisions of Table 1.

5.1.3 Calculation of the mass of different non-ferrous metals contained in Class I and Class II graphite crucibles The mass of different non-ferrous metals contained in a graphite crucible is represented by multiplying the graphite crucible model by the K-value coefficient of the non-ferrous metal it contains. The K-value coefficients for commonly used non-ferrous metals are shown in Table 2.

5.2 Units of Quantity The quantity of graphite crucibles is expressed in "pieces".

5.3 Shape and Dimensions

5.3.1 A typical shape and schematic diagram of a graphite crucible are shown in Figure 1.

5.3.2 Typical dimensions of Class I and Class II graphite crucibles are shown in Table 3, and typical dimensions of Class III graphite crucibles are shown in Table

4.Other graphite crucibles and irregularly shaped graphite crucibles... The shape and size of the crucible are processed according to the drawing requirements, and the dimensional deviations are rounded to one decimal place.

6 Technical Requirements

6.1 Appearance Quality The appearance quality of the graphite crucible should meet the requirements of Table 5.

6.2 Physical and chemical properties The physical and chemical properties of graphite crucibles should meet the requirements of Table 6.

7 Inspection Rules

7.1 Dimensional Inspection Dimensioning is measured using vernier calipers with an accuracy class of

0.01 mm, depth vernier calipers, and steel tape measures with an accuracy class of

1.0 mm. Straight ruler inspection.

7.2 Appearance Quality Inspection

7.2.1 Inspection of cracks and markings on inner and outer walls Visually inspect the markings and for cracks on the inner and outer walls of the graphite crucible with the naked eye.

7.2.2 Inspection of mouth roundness The roundness measured with a steel tape measure with an accuracy class of

1.0 mm is expressed as. the difference between the maximum and minimum outer diameter of the upper opening divided by... Average outer diameter of the upper opening x 100%.

7.2.3 Inspection of concavity or convexity, and flatness of the opening

7.2.3.1 When measuring a concave surface, place a steel straightedge on the test surface. At the point where the gap between the steel straightedge and the test surface is largest, use a ruler with an accuracy class of 0.01mm. Use calipers to measure its maximum value.

7.2.3.2 When measuring a convex surface, insert a wedge gauge under each end of the

steel straightedge, with the straightedge and wedge gauges at right angles, until the graduations at both ends are the same. Wait until the steel straightedge is in contact with the highest point of the protrusion, and record the value measured by the wedge gauge.

7.2.3.3 During the flatness inspection, place the product upright on a flat surface and use a steel tape measure with an accuracy grade of 1.0mm to vertically measure the height difference to determine its flatness. Mouth flatness.

7.2.4 Inspection of interlayer Gently tap the graphite crucible blank with a small wooden hammer weighing approximately 150g, and judge whether there is a layer inside by the echo. If there is a layer inside, locate the layer. Break it open, measure its depth with a depth vernier caliper with an accuracy class of 0.01mm, measure its length and width with a tape measure, and calculate the area of the interlayer.

7.2.5 Inspection of Lava Cavities

7.2.5.1 During inspection, areas discolored due to iron oxide or other low-melting-point substances should be examined. In areas where molten pits may be present, use approximately... Gently tap the discolored area 2-3 times with the flat end of a 100g steel hammer to check for any hidden cavities. For any exposed cavities... It should be measured and recorded.

7.2.5.2 Measure the maximum and minimum dimensions of the melt cavity opening using a vernier caliper with an accuracy class of

0.01 mm. The surface diameter of the melt cavity is... The average of the sum of the two.

7.2.5.3 Measure the depth of the melt hole using a depth vernier caliper with an accuracy class of

0.01 mm.

7.2.6 Inspection of missing edges Measure its height, length, and depth using a vernier caliper with an accuracy class of

0.01 mm.

7.3 Testing of Physicochemical Performance Indicators

7.3.1 Carbon content Proceed according to GB/T 16555.

7.3.2 Bulk Density Proceed according to GB/T 2997.

7.3.3 Apparent porosity Proceed according to GB/T 2997.

7.3.4 Compressive strength at room temperature Proceed according to GB/T 5072.

7.3.5 Refractoriness (°C) It shall be carried out in accordance with the provisions of GB/T 7322 and in combination with the relevant technical requirements for an anti-oxidation glaze

layer with an outer coating thickness of 0.6mm±0.2mm.

7.4 Inspection Rules

7.4.1 Batching A batch is defined as the production of ingredients using the same raw materials, process, and formula; a batch is defined as the production of ingredients using the same raw materials, process, and formula reaching 100 tons or a continuous production volume reaching [a certain value]. No. 500,000

a) When raw materials change, equipment is adjusted, or there are significant changes in the production process (such as adding or removing items from the production process).

b) When production resumes after a shutdown of more than 3 months.

7.4.5 Judgment and Re-verification

7.4.5.1 Each graphite crucible shall undergo an appearance quality inspection during factory inspection. If any indicator fails to meet the requirements, the graphite crucible shall be deemed unqualified. Defective product.

7.4.5.2 If any physicochemical indicator fails to meet the standard during inspection, double the sampling rate should be applied to the original batch of products for retesting of the non-compliant item. If the retest still fails... If the product fails to meet the standard, the entire batch of products is deemed unqualified.

8.1 Packaging

8.1.1 The inside of the cardboard box should be filled with soft material and the box should be tied twice horizontally and twice vertically with packing straps.

8.1.2 When packaging with straw rope, the graphite crucible should first be wrapped with straw mats and then tied securely with straw rope. The crucible body should not be exposed.

8.1.3 When packing in wooden crates, the crates should be securely nailed with sturdy wooden strips. The gaps around the graphite crucible inside the crate should be filled with soft material or stabilized with wooden strips. To prevent the graphite crucible from moving and wearing out, it is then packaged with wooden plywood or bamboo plywood.

8.1.4 Other packaging methods shall be determined by agreement between the supplier and the buyer.

8.2 Marking

8.2.1 The graphite crucible should have a prominent and secure label indicating the product type, model, and manufacturer. 100