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CCS B73



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

GB/T 12496.8-2015

Replacing GB/T 12496.8-1999

**Test methods of wooden activated carbon - Determination of
iodine number**

木质活性炭试验方法 碘吸附值的测定

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 12496.8-1999 "Test methods of wooden activated carbon-Determination of iodine number". The main technical changes of this standard compared with GB/T 12496.8- 1999 are as follows: - ADJUST the ratio of potassium iodide to iodine from

2.0.1 in the original standard to 1.5.1. - For the calibration of sodium thiosulfate solution, CHANGE the potassium dichromate method in the original standard to the potassium iodate method. - CHANGE the concentration of hydrochloric acid from "1 + 9" of the original standard to 5 wt%. This standard was proposed and shall be under the jurisdiction of the State Forestry Administration. Drafting organization of this standard. Institute of Chemical Industry of Forest Products, Chinese Academy of Forestry. The main drafters of this standard. Deng Xianlun, Dai Weidi, Sun Kang, Zhu Guangzhen, Zhang Yanping. This standard replaces the standard previously issued as follows: - GB/T 12496.7-1990; - GB/T 12496.8-1999. Test methods of wooden activated carbon - Determination of iodine number

1 Scope

GB/T 12496.8-2015 is the Chinese national standard on test methods of wooden activated carbon - determination of iodine number, in the field of agriculture. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most

foreign buyers meet it. It was issued on 3 July 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 2 November 2015. Classification: ICS 65.020, CCS B73. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the test method for the iodine number of wooden activated carbon. This standard applies to the determination of iodine number of wooden activated carbon.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB/T 6682 Water for analytical laboratory use - Specification and test methods

3 Method summary

After a certain amount of the sample and the iodine solution are oscillated and adsorbed, it is filtered, the filtrate is taken, the amount of iodine remaining in the filtrate is titrated with a sodium thiosulfate solution. The amount of iodine (in milligrams) per gram of carbon adsorbed at a residual iodine concentration of

0.02 mol/L (1/2 I₂) is determined as the iodine value.

4 Instruments and reagents

The water used in this standard shall comply with the grade 3 water specifications in GB/T 6682; all the reagents listed are analytical pure unless otherwise specified.

4.1 Balance, precision 0.0001 g.

4.2 Electric constant temperature drying oven.

4.3 Oscillator, frequency 240 times/min ~ 275 times/min.

4.4 Sealed sample crusher.

4.5 Stopwatch timer.

4.7 Conical flask with a stopper, 250 mL.

4.8 Acid burette, 10 mL, precision

0.05 mL; basic burette, 50 mL, precision

0.1 mL.

4.9 Wide-mouth conical flask, 250 mL.

4.10 Measuring cylinder, 100 mL and 1000 mL.

4.11 Volumetric flask, colorless and brown.

4.13 Funnel, with an inner diameter of upper opening at 100 mm.

4.14 Reagent bottle, colorless and brown.

4.15 Qualitative filter paper, GB/T 1914, medium speed (102), phi

4.16 Pipette, 10 mL and 50 mL.

4.17 Concentrated hydrochloric acid (GB/T 622).

4.18 Iodine (GB/T 675).

4.19 Potassium iodide (GB/T 1272).

4.20 Sodium thiosulfate [Na₂S₂O₃ · 5H₂O] (GB/T 637).

4.21 Soluble starch (HG/T 2759).

4.22 Potassium iodate (GB 1258).

4.23 Anhydrous sodium carbonate (GB/T 639).

4.24 Color changing silica gel (HG/T 2765.4).

5.1 Iodine (1/2 I₂) standard solution (0.1000 mol/L) WEIGH

19.100 g of potassium iodide, completely DISSOLVE it in a beaker containing about 30 mL of water, ADD