



Forestry Industry Standard of the People's Republic of China

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Terminology of bamboo charcoal products

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Foreword

SAC/TC 263 is in charge of this English translation. In case of any doubt about the contents of English translation, the Chinese original shall be considered authoritative.

This standard is drafted in accordance with the rules given in the GB/T 1.1-2009.

This standard was proposed and prepared by SAC/TC 263, National Technical Committee on Bamboo and Rattan of Standardization Administration of China.

Terminology of bamboo charcoal products

1 Scope

This standard specifies the terminology for bamboo charcoal products and classification. This standard is applicable to bamboo charcoal industry and industries of other bamboo charcoal related products.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 26900 *Bamboo charcoal for air-purification*

GB/T 26913 *Bamboo charcoal*

GB/T 28669 *Bamboo charcoal for fuel*

GB/T 30365 *Bamboo charcoal for home furnishings*

3 Basic Terminology

3.1

bamboo charcoal

black solid product made by pyrolyzing bamboo at high temperature with restricted or in the absence of oxygen

[SOURCE: GB/T 26913-2011, 3.1]

3.2

modified bamboo charcoal

Bamboo charcoal with physical or chemical modification

3.3

bamboo charcoal briquette

solid products made of dried ,extruded, molded and pyrolyzed bamboo powder

3.4

tube bamboo charcoal

bamboo charcoal with original bamboo culm shape

[SOURCE: GB/T 26913-2011, 3.2]

3.5

flakes bamboo charcoal

regular flake-shaped bamboo charcoal

[SOURCE: GB/T 26913-2011, 3.3]

3.6

broken bamboo charcoal

broken, irregularly shaped bamboo charcoal

[SOURCE: GB/T 26913-2011, 3.4]

3.7

granular bamboo charcoal

bamboo charcoal made by manually breaking and screening pyrolyzed bamboo with diameter between 0.18mm-20mm

[SOURCE: GB/T 26913-2011, 3.5]

3.8

powder bamboo charcoal

bamboo charcoal with diameter less than 0.18 mm (80 mesh)

[SOURCE: GB/T 26913-2011, 3.6]

3.9

low temperature bamboo charcoal

bamboo charcoal obtained at carbonization temperature below 500 °C

3.10

medium temperature bamboo charcoal

bamboo charcoal obtained at carbonization temperature of 500 °C≤T≤800 °C

3.11

high temperature bamboo charcoal

bamboo charcoal obtained at carbonization temperature above 800 °C

3. 12

conductive bamboo charcoal

bamboo charcoal with volume resistivity of $10^0 \Omega\cdot\text{m}$ - $10^2 \Omega\cdot\text{m}$

3. 13

low-conductive bamboo charcoal

bamboo charcoal with volume resistivity of $10^2 \Omega\cdot\text{m}$ - $10^7 \Omega\cdot\text{m}$

3. 14

non-conductive bamboo charcoal

bamboo charcoal with volume resistivity $\geq 10^7 \Omega\cdot\text{m}$

3. 15

bamboo activated charcoal

charcoal made by carbonization and activation of bamboo-based material

4 Physical-chemical Properties

4. 1

moisture content of bamboo charcoal

water contained in bamboo charcoal per unit mass

4. 2

ash of bamboo charcoal

residue of bamboo charcoal calcined to constant weight

4. 3

volatile matter of bamboo charcoal

gaseous products released from bamboo charcoal when being calcined

4. 4

fixed carbon of bamboo charcoal

net carbon content of bamboo charcoal

4. 5

pH value of bamboo charcoal

acidity and alkalinity of bamboo charcoal

4. 6

calorific value of bamboo charcoal

heat released from complete combustion of bamboo charcoal per unit mass

4. 7

infrared emissivity of bamboo charcoal

ratio of the emission power of bamboo charcoal to an ideal black body emissivity in the 4 μm -25 μm wave band at a certain temperature

[SOURCE: GB/T30365-2013, 3.2]

4. 8

granular density

density obtained from dividing the mass of bamboo charcoal particles by the granular volume of particles including open pores and closed pores

[SOURCE: GB/T30365-2013, 3.3]

4.9

pure density

under specified conditions, the mass per unit volume of bamboo charcoal with pore volume and interstitial volume removed

4.10

macropore

pores with diameter more than 50 nm(500 Å) in bamboo charcoal

4. 11

mesopore

pores with diameter of 2 nm-50 nm(20 Å-500 Å) in bamboo charcoal

4. 12

hardness

resistance of bamboo charcoal to external pressing forces

4. 13

crushing strength

resistance of bamboo charcoal to external crushing forces

4. 14**adsorption**

mass transfer processing of bamboo charcoal adsorbing other substances

4. 15**adsorption rate**

amount of other substances absorbed by bamboo charcoal per unit mass

4. 16**yield of bamboo charcoal**

percentage of bamboo charcoal absolute dried mass in the air-dried bamboo mass

4. 17**refining degree of bamboo charcoal**

usually refers to the degree of carbonization of bamboo charcoal, measured by the resistance of bamboo charcoal within the range of $10^0 \Omega$ - $10^8 \Omega$. The index ranges 0 from 8, it is used to describe the refining degree. Resistance above $10^9 \Omega$ equals refining degree of 9

5 Bamboo charcoal products**5. 1****bamboo charcoal products**

all kinds of products made of bamboo charcoal as the main raw material

5. 2**bamboo charcoal package**

products packed with a certain quantity of bamboo charcoal using cloth, paper fabric or other breathable material as packaging material

5. 3**bamboo charcoal ceramic**

specially processed pottery products made of pottery clay added with bamboo charcoal powder as the main raw material

5. 4**molded bamboo charcoal**

solid charcoal made by mixing, molding and drying bamboo charcoal powder added with environmentally-friendly additives

5. 5**bamboo charcoal fiber**

fibers made of chemical fiber materials added with nanometer bamboo charcoal powder, which has good adsorption capacity and far infrared radiation

5. 6**bamboo charcoal composite leather**

composite leather with good adsorption capacity and breath ability made of conventional leather raw material added with bamboo charcoal powder

5. 7**bamboo charcoal paper**

paper sheets with good adsorption capacity made of pulp added with bamboo charcoal powder or by adding bamboo charcoal powder between the layers

5. 8**bamboo charcoal cloth**

cloth products with good adsorption capacity and far infrared radiation made by loading bamboo charcoal powder on the surface of cloth

5. 9**bamboo charcoal sponge**

sponge with good adsorption capacity and far infrared radiation made of polyurethane mixed with bamboo charcoal powder and produced by traditional sponge processing technology

5. 10**bamboo charcoal for humidity regulation**

bamboo charcoal used for adjusting air humidity

5. 11

bamboo charcoal for soil improvement

bamboo charcoal used for adjusting soil acidity/alkalinity and improving soil porosity

5. 12

bamboo charcoal for electromagnetic shielding

bamboo charcoal used for blocking electromagnetic wave radiation

5. 13

Bamboo charcoal for water purification

bamboo charcoal with purifying capacity used for absorbing impurities in water

5. 14

bamboo charcoal for feed additive

bamboo charcoal added to feed for improving animal digestion and absorption

5. 15

bamboo charcoal for air purification

bamboo charcoal with air purification capacity used for removing peculiar smell and adsorbing suspended substances in the air

[SOURCE: GB/T26900-2011, 2.1]

5. 16

bamboo charcoal for fuel

bamboo charcoal used for heating, including unprocessed bamboo charcoal and molded bamboo charcoal

[SOURCE:GB/T28669-2012, 3.1]

5. 17

bamboo charcoal for food auxiliaries

bamboo charcoal used as food processing additive with physical and chemical index compliant with the requirements of relevant national standards for food safety

5. 18

bamboo charcoal for home furnishings

bamboo charcoal with high far infrared emissivity and used for home products

[SOURCE:GB/T30365-2013, 3.2]

5. 19

bamboo charcoal craft products

ornamental products made by carving, molding or polishing bamboo charcoal, such as wind bell, hanging decorations, charcoal carvings, etc.

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