

Translated English of Chinese Standard: HJ/T296-2006

www.ChineseStandard.net → Buy True-PDF → Auto-delivery.

Sales@ChineseStandard.net

HJ

ENVIRONMENTAL PROTECTION INDUSTRY STANDARD
OF THE PEOPLE'S REPUBLIC OF CHINA

HJ/T 296-2006

Replacing HBC 16-2003

Technical Requirement for Environmental Labeling

Products – Sanitary Wares

环境标志产品技术要求 卫生陶瓷

Issued on: August 23, 2006

Implemented on: September 01, 2006

Issued by: State Bureau of Environmental Protection

Table of Contents

Foreword.....	4
1 Scope.....	6
2 Normative References	6
3 Terms and Definitions	6
4 Basic Requirements.....	7
5 Technical Contents.....	8
6 Inspection Methods.....	8
Appendix A (Normative) Determination of Lead and Cadmium in Ceramic Samples.....	9

Foreword

In order to implement the *Environmental Protection Law of the People's Republic of China*; effectively use and save resources; reduce the impact of sanitary ceramics on the environment and human health in the production, use and disposal process; and guide and promote the production and use of environmentally friendly products; this Standard is formulated.

This Standard stipulates the soluble lead and cadmium content limits of sanitary ceramics in accordance with the environmental standards in "Civil Engineering and Civil Building Materials" of South Korea. The radioactive specific activity index of sanitary ceramics is formulated based on the use of raw materials for sanitary ceramics in China. The principle of saving-water stipulates the maximum water consumption of the toilet; meanwhile, it stipulates the recycling rate of industrial waste generated during the production of sanitary ceramics.

This Standard has partially modified the technical contents of *Certifiable Technical Requirement for Environmental Labeling Products – Sanitary Ceramics* (HBC 16-2003).

Compared with the *Certifiable Technical Requirement for Environmental Labeling Products – Sanitary Ceramics* (HBC 16-2003), the main changes of this Standard are as follows:

- Add the requirements for soluble lead and cadmium in sanitary ceramics, the requirements for the maximum water consumption of urinals and squatting pans, and the requirements for the recycling rate of industrial waste generated during the production of sanitary ceramics;
- Modify the radioactive specific activity index of sanitary ceramics;
- Delete the requirements for water absorption and crack resistance of sanitary ceramics.

This Standard is a recommended standard, applicable to the certification of environmental labeling products in China.

This Standard was proposed by the Department of Science & Technology, and Standards of the State Bureau of Environmental Protection.

Chief drafting organizations of this Standard: Environmental Development Center of State Bureau of Environmental Protection; and National Research Center for Testing Techniques for Building Materials.

This Standard was approved by the State Bureau of Environmental Protection on August 23, 2006.

Technical Requirement for Environmental Labeling Products – Sanitary Wares

1 Scope

This Standard specifies the definition, basic requirements, technical content and inspection methods for the sanitary ceramics of environmental labeling products.

This Standard is applicable to sanitary ceramic products such as washbasins, toilets, urinals, bidets, washing tanks, squatting pans, bathtubs, etc.

2 Normative References

The provisions in following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB 6566 Limits of Radionuclides in Building Materials

GB 6952 Sanitary Wares

GB/T 15555.2-1995 Solid Waste - Determination of Copper, Zinc, Lead, Cadmium
- Atomic Absorption Spectrometry

3 Terms and Definitions

3.1 Internal exposure index

The radioactive specific activity of the natural radionuclide radium-226 in sanitary ceramics is divided by the limit specified in this Standard.

Expression formula:
$$I_{Ra} = \frac{C_{Ra}}{200}$$

Where:

I_{Ra} – internal exposure index;

Appendix A

(Normative)

Determination of Lead and Cadmium in Ceramic Samples

A.1 Principle

The powder samples of ceramics were treated by strong acid; and the heavy metals of lead and cadmium in the solution were determined by flame atomic absorption spectrometry.

A.2 Reagents

- Nitric acid (HNO_3 , $\rho = 1.42 \text{ g/ml}$), guaranteed reagent;
- Preparation of nitric acid solution (1 + 1);
- Deionized water or distilled water.

A.3 Apparatus

- Atomic absorption spectrophotometer;
- Filtering device: glass sand core filter, fiber filter membrane (pore size $\phi 45\mu\text{m}$);
- Adjustable electric heating plate.

A.4 Sample preparation

The sample is cleaned, dried, smashed, shrunk, ground to pass through an $80\mu\text{m}$ (180 mesh) sieve, and stored in a clean weighing bottle for later use. The preparation process shall avoid introducing impurities.

A.5 Preparation of test solution

Take 10 g of the sample (accurate to 0.0001 g) into a 100 ml beaker; add 25 ml of nitric acid solution; rinse the wall of the beaker with a small amount of distilled water; stir evenly; and cover with a watch glass. Place it on a 200°C low-temperature heating plate to heat for 2h; cool to stand for 1h; immediately filter into a 50 ml volumetric flask, rinse to the mark/ and shake well. This is the test solution of the sample to be tested.

A.6 Blank test solution

Use deionized water or distilled water to replace the sample; use the same procedures and reagents as the sample; and prepare a blank test solution while processing the

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----