

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

SN/T 4847-2017

**Test methods for resistance to temperature changes of sanitary
appliances**

卫生洁具耐急冷急热性试验方法

(English Translation)

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Foreword

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

This standard uses the redrafting method to refer to EN14688:2006 "Sanitary Ware Washer Functional Requirements and Test Methods", EN13310:2003 "Functional requirements and test methods for kitchen sinks", EN14527:2006 A1.2010 "Household shower trays", EN14516.

2006 A1.2010 "Bathtub" is a compilation of the content of the rapid cold resistance test method.

This standard is proposed and managed by the National Certification and Accreditation Administration.

This standard was drafted. Hebei Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China, Guangdong Entry-Exit Inspection and Quarantine Bureau, Hunan Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China, National Center for Drainage and Water-saving Equipment Product Quality Supervision and Inspection.

1 Scope

This standard specifies the rapid cold resistance test method for sanitary wares such as face washers, washing tubs, shower trays, and bathtubs.

This standard is applicable to the test of the rapid heat resistance of sanitary wares such as face cleaners, washing tanks, shower trays and bathtubs.

2 Principle of the method

Simulate the use of hot and cold water during the use of sanitary ware, apply hot water and cold water directly to the test sample, and accept the external temperature.

A sharp change in the degree of observation, whether the sample is cracked or broken, to determine the resistance to rapid cooling and heat performance of sanitary ware.

3 Equipment and materials

3.1

Hot water supply system, capable of providing $(70 \pm 2) ^\circ \text{C}$, $(75 \pm 2) ^\circ \text{C}$, $(90 \pm 2) ^\circ \text{C}$ hot water.

3.2

Cold water supply system capable of providing $(12 \pm 3) ^\circ \text{C}$, $(15 \pm 2) ^\circ \text{C}$ cold water.

3.3

Outlet pipe with an inner diameter of 10mm, used for the output of hot and cold water in the washer and sink test.

3.4

Outlet pipe with an inner diameter of 22mm for the output of hot and cold water in the bathtub test.

3.5

Shower for the output of hot and cold water in the shower tray test.

3.6

Test bench, the sample to be tested can be placed horizontally, and the sample should not be subjected to any pressure.

3.7

Thermometer, measuring temperature range from $0 ^\circ \text{C}$ to $100 ^\circ \text{C}$, accurate to $\pm 1 ^\circ \text{C}$.

3.8

Flowmeter, measuring range from 0.05L/s to 0.5L/s, accurate to 0.001L/s.

3.9

Balance, the sensitivity is 1g.

3.10

stopwatch.

3.11

Staining solution. Add 1 mL of detergent to 100 g of methylene blue and dilute to 1 L with distilled water.

3.12

tape measure, accurate to 1mm.

3.13

Illuminance meter, accurate to 0.1lx.

4 Test samples

Test samples require no defects such as cracks and breakage.

5.1 Face washer

5.1.1

Select any point within the area of the (110 ± 5) mm diameter of the drain outlet of the washer.

5.1.2

Adjust the height of the hot and cold water outlet of the water supply system. It is required to be located at the top of the washout point (80 ± 5) mm.

5.1.3

Open the drain outlet and open (70 ± 2) °C hot water (90 ± 1) s at a flow rate of (0.1 ± 0.01) L/s, stop (30 ± 1) s, and then the flow rate is turned on (15 ± 2) °C cold water (90 ± 1) s, stop (30 ± 1) s. This process is repeated 1000 times without interruption.