

ICS 91.140.70

CCS Q31



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

GB/T 34549-2024

Replacing GB/T 34549-2017

Sanitary ware - Smart toilets

卫生洁具 智能坐便器

Issued on: April 25, 2024

Implemented on: November 1, 2024

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

Table of Contents

1	Scope	
2	Normative References	
3	Terms and Definitions	
4	Classification and Functions	
4.1	Classification	
5	General Requirements	
5.1	Appearance Quality	
5.1.1	Toilet part	
5.3	Sizes	
5.5	Size of Sewage Outlet of Smart Toilets	
5.6	Water Seal	
5.19	Supporting Requirements	
6	Functions of Use	
6.1	Toilet Functions	
6.2	Cleaning Function	
6.4	Warm Air-Drying Performance	
7	Performance Requirements	
7.3	Anti-siphon Function	
7.4	Mechanical Strength	
8	Electrical Safety	
8.2	Power Supply	
9	Test Methods	
9.1	Test Conditions	
9.2	General Requirements	
9.2.5	Sewage outlet size of smart toilets In accordance with the method specified in	
9.2.6	Water seal In accordance with the method specified in	
9.2.7	Minimum diameter of Trap In accordance with the method specified in	
9.2.8	Trap In accordance with the method specified in	
9.2.14	Barcol hardness	
9.2.18	Smart toilet flushing noise test	
9.3	Test of Functions of Use	
9.3.1	Toilet water consumption In accordance with the method specified in	

9.3.2 Flushing function test In accordance with the method specified in

9.3.7 Water temperature stability test

9.3.13 Warm air-drying performance

9.5 Electrical Safety

10 Inspection Rules...

11 Marking and Identification...

12 Instructions of Installation and Use...

1 Scope

GB/T 34549-2024 is the Chinese product standard for smart toilets: the washlet-type units with an integrated bidet, heated seat, warm air drying and, increasingly, automatic flushing, deodorising and health monitoring. China is both the largest producer and now the largest market for them, and the product is an unusual regulatory object because it is simultaneously a sanitary ware fitting, an electrical appliance in a wet room, and a device that sprays water at a person. The standard sets the classification and the requirements accordingly: the water consumption and the flushing performance, the requirements on the cleansing function, the water temperature and its control and the protection against scalding, the seat heating, the warm air drying, the deodorising function, the nozzle and its self-cleaning, the electrical safety and the leakage protection, the requirements on the materials and the surface quality, the durability of the seat, the lid and the mechanisms, the noise, and the marking and instructions, together with the test methods and the inspection rules. The 2024 edition replaces GB/T 34549-2017. For a manufacturer, an importer or a buyer in China, this is the acceptance text.

This Standard specifies the terms and definitions, classification and functions, general requirements, functions of use, performance requirements, electrical safety, test methods, inspection rules, marking and identification, installation and usage instructions, packaging, transportation and storage of smart toilets. This document is applicable to smart toilets installed on water supply and drainage pipelines in various types of civil or public buildings.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in the text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 2423.3 Environmental Testing - Part

3 Terms and Definitions

The terms and definitions defined in GB/T 9195 and GB/T 6952-2015, and the following are applicable to this document.

3.1 smart toilet A toilet that is controlled by an electromechanical system or program to complete one or more functions including warm water cleaning function (buttocks cleaning function and female washing function).

3.2 integral smart toilet A smart toilet with an intelligent electromechanical control system that cannot be used separately from the toilet.

3.3 split smart toilet A smart toilet with an intelligent electromechanical control system that can be independently separated from the toilet, and the smart toilet cover part can be used after being combined.

4.1 Classification

4.1.1 Classification by material In accordance with the base material, they can be divided into ceramic smart toilets and non- ceramic smart toilets.

4.1.2 Classification by heating mode In accordance with the heating mode, they can be divided into.

4.1.3 Classification by structure In accordance with the structure, they are divided into integral smart toilets and split smart toilets (smart toilet cover).

5.1.1 Toilet part

5.1.2 Toilet cover part The cover of the smart toilets shall comply with the following requirements.

5.2 Deformation The maximum allowable deformation of the toilets shall comply with the stipulations of Table 1.

5.3 Sizes

5.4 Thickness The thickness of the ceramic toilet body at any part shall not be less than 6 mm (excluding the additional supporting body to prevent firing deformation).

5.6 Water Seal

5.7 Minimum Diameter of Trap A solid ball with a diameter of 41 mm shall be able to pass the water channel of the trap of smart toilets.

5.8 Trap Ceramic smart toilet products without an integral trap shall be equipped with a trap with a water seal depth of not less than 50 mm.

5.9 Water Absorption Rate The water absorption rate of ceramic toilets is $\leq 0.5\%$, and the water absorption rate of artificial stone toilets is $\leq 0.5\%$.

5.10 Crack Resistance Ceramic toilets shall have no glaze cracks or base cracks after being subjected to the crack resistance test.

5.11 Load Resistance After being subjected to the load resistance test, there shall be no deformation or any visible structural damage. The loads endured by various types of products are as follows:

5.12 Test of Resistance to Household Chemicals After being subjected to the test of resistance to household chemicals, non-ceramic toilets shall have no obvious damage on the surface.

5.13 Combustion Resistance After being subjected to the combustion resistance test, the non-ceramic toilet part shall manifest no open flame or smoldering, and any form of damage shall not affect the use of the products.

5.14 Barcol Hardness The Barcol hardness of the acrylic toilet part shall not be less than 40, and the Barcol hardness of the artificial stone part shall not be less than 35.

5.15 Thermal Aging Resistance of Plastics After being subjected to the test of thermal aging resistance of plastics, the surface of the plastic part shall be free of fractures, cracks and obvious deformation, etc., and shall comply with the requirements of 7.1.

5.16 Whole-machine Waterproof Level The whole-machine waterproof level shall not be lower than IPX4.

5.17 Surface Corrosion Resistance Test After the products are installed, the appearance of the coated and plated parts of the visible surface shall not be lower than the requirements of appearance rating (RA) Level 9 in Table 1m of GB/T 6461-2002.

5.18 Smart Toilet Flushing Noise In accordance with the stipulations of 9.2.18, determine the flushing noise of smart toilets. When required, the manufacturer shall report the cumulative percentage sound level L10 and L50 of the flushing noise.

5.19 Supporting Requirements

5.19.1 The supporting external water pipes shall comply with the stipulations of GB/T 23448.

5.19.2 In addition to the swing test, the supporting seat and cover shall comply with the stipulations of JC/T 764-2008.

6.1 Toilet Functions

6.1.1 Toilet water consumption The nominal water consumption of the toilets shall comply with the stipulations of Table