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

GB/T 21551.2-2024

Replacing GB/T 21551.2-2010

**Antibacterial, antimicrobial and purification functions of
household and similar electrical appliances - Part 2: Particular
requirements for antibacterial materials**

家用和类似用途电器的抗菌、除菌、净化功能 第2部分：抗菌材料的特殊要求

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Foreword

This document was issued on 31 December 2024 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 January 2027.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies.

The document runs to 31 pages in translation. The identification, the dates, the table of contents and the clauses reproduced on this page are taken from the standard itself.

GB/T 21551.2-2024 Antimicrobial and cleaning function of household and similar electrical appliances - Part 2: Particular requirements for material

It replaces GB/T 21551.2-2010, which is superseded.

1 Scope

GB/T 21551.2-2024 is the part of the Chinese appliance hygiene series that deals with the antibacterial materials themselves: the plastics, coatings, textiles and metal surfaces treated with silver, copper, zinc or organic agents that a manufacturer builds into a product in order to claim an antibacterial function. It is the part a component supplier is tested against. The standard sets the requirements on the material, the test methods for the antibacterial rate against the specified test organisms including the inoculation, the contact time, the recovery and the calculation, the mould resistance test, the durability of the effect after washing, abrasion and ageing, which is where most claims fail, the requirements on the safety of the antimicrobial agent and on its migration, and the marking and the declaration. The 2024 edition replaces GB/T 21551.2-2010. For a materials supplier or an appliance maker qualifying one in China, this is the test the claim rests on.

This document specifies the technical requirements for the antimicrobial, mold prevention, antiallergen and antiviral properties of materials and components and parts used in household and similar electrical appliances (hereinafter referred to as "household appliances"), and describes the corresponding test methods.

This document is applicable to the evaluation of the antimicrobial, mold prevention, antiallergen and antiviral properties of household appliances using antimicrobial, mold prevention, antiallergen and antiviral materials and related components and parts.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions 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 2829 Sampling procedures and tables for periodic inspection by attributes (apply to inspection of process stability)

GB/T 4288-2018 Household and similar electrical washing machine

GB 4789.2 National food safety standard - Food microbiological examination - Aerobic plate count

GB 4789.15 National food safety standard - Food microbiological examination - Enumeration of moulds and yeasts

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

GB/T 8170 Rules of rounding off for numerical values & expression and judgment of limiting values

GB/T 17219 Standard for safety evaluation of equipment and protective materials in drinking water system

GB 19489 Laboratories - General requirements for biosafety

GB/T 21551.1 Antimicrobial and cleaning function of household and similar electrical appliances - Part 1: General requirement

3 Terms and definitions

For the purposes of this document, the terms and definitions established in GB/T 21551.1 and the following ones apply.

3.1

components and parts

single piece or unit comprising an appliance

4 Specifications

4.1 Hygienic safety

Antimicrobial, mold prevention, antiallergen and antiviral materials in contact with drinking water shall comply with GB/T 17219.

4.2 Antimicrobial properties

The antimicrobial rate of materials and components and parts shall not be less than 90.0% (antimicrobial logarithm is not less than 1.0).

4.3 Mold prevention properties

The mold prevention grade of materials and components and parts shall be Grade 1 or 0.

4.4 Antiallergen properties

The antiallergen rate of the material shall not be less than 90.0%.

4.5 Antiviral properties

The antiviral rate of the material shall not be less than 90.0% (antiviral logarithm is not less than 1.0).

4.6 Attenuation properties

4.6.1 After the attenuation test in 5.7, the antimicrobial rate of materials and components and parts shall not be less than 90.0% (antimicrobial logarithm is not less than 1.0).

4.6.2 After the attenuation test in 5.7, the mold prevention grade of materials and components and parts shall be Grade 1 or 0.

4.6.3 After the attenuation test in 5.7, the antiallergen rate of the material shall not be less than 80.0%.

4.6.4 After the attenuation test in 5.7, the antiviral rate of the material shall not be less than 80.0%.

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