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

GB/T 44309-2024

Porcelain slab

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

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1 Scope

GB/T 44309-2024 is the Chinese standard for porcelain slab, the large-format sintered panel that has taken over Chinese kitchen worktops, wall cladding and furniture surfaces in the space of a few years. It is a difficult product to standardise because its selling points are exactly its weak points: the slabs are made up to three metres long and as little as six millimetres thick, so flatness, edge straightness and the ability to survive handling and fabrication matter as much as the classical ceramic properties. The standard sets the classification and designation, then the requirements: the dimensions and permissible deviations including flatness, warpage and edge straightness, the water absorption, the modulus of rupture and breaking strength, the impact and abrasion resistance, the thermal shock, frost and stain resistance, the chemical resistance, the colour consistency and appearance quality, and the limits on radioactivity and on released substances for surfaces in food contact. It then gives the test methods, the inspection rules and the marking, packaging, transport and storage. It took effect on 23 August 2024.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 191 Pictorial markings for packaging, storage and transportation

GB/T 3810.2 Test methods for ceramic tiles Part

GB/T 5166 Determination of elastic modulus of sintered metal materials and cemented carbides

GB 6566 Limits of radionuclides in building materials

GB/T 9195 Terminology and classification of building sanitary ceramics

GB/T 17671 Test method for strength of cement mortar (ISO method)

GB/T 39156-2020 Technical requirements and test methods for large-size ceramic panels

JB/T 8337-2012 Ordinary abrasive garnet JC/T 2172 Test method for elastic modulus, shear modulus and Poisson's ratio of fine ceramics - Pulse excitation method

3 Terms and definitions

The terms and definitions defined in GB/T 9195 and GB/T 4100-2015 and the following apply to this document.

4 Determination of modulus of rupture and breaking strength

GB/T 3810.5 Test methods for ceramic tiles Part

5 Determination of the impact resistance of tiles by coefficient of restitution

GB/T 3810.7 Test methods for ceramic tiles Part

7 Determination of surface abrasion resistance of glazed tiles

GB/T 3810.8 Test methods for ceramic tiles Part

8 Determination of linear thermal expansion

GB/T 3810.9 Test methods for ceramic tiles Part

9 Determination of thermal shock resistance

GB/T 3810.10 Test methods for ceramic tiles Part

10 Determination of moisture expansion

GB/T 3810.11 Test methods for ceramic tiles Part

11 Determination of glaze crack resistance of glazed tiles

GB/T 3810.12 Test methods for ceramic tiles Part

12 Determination of frost resistance

GB/T 3810.13 Test methods for ceramic tiles Part

13 Determination of chemical resistance

GB/T 3810.14 Test methods for ceramic tiles Part

14 Determination of stain resistance

GB/T 3810.15 Test methods for ceramic tiles Part

15 Determination of lead and cadmium leaching from glazed tiles

GB/T 4100-2015 Ceramic tiles

GB/T 4340.1 Vickers hardness test for metallic materials Part