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

GB/T 27710-2020

Replacing GB/T 27710-2011

Floor drains

地漏

Issued on: July 21, 2020

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

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 27710-2011 "Floor Drain". Compared with GB/T 27710-2011, the main technical changes are as follows:

- Modified the scope of application (see Chapter 1, Chapter 1 of the.2011 edition);
- Modified terms and definitions (see Chapter 3, Chapter 3 of the.2011 edition);
- Modified the classification of products (see Chapter 4, Chapter 4 of the.2011 edition);
- Modified the material requirements (see Chapter 5, Chapter 5 of the.2011 edition);
- Added the requirements for the appearance of ceramic parts (see 6.1.4);
- Modified the processing and assembly requirements (see 6.2, 6.4 in the.2011 edition);
- Deleted the requirement for the cross-sectional area of side wall floor drain drainage (see 6.4.8 of the.2011 edition);
- Revised the corrosion resistance requirements (see 6.3, 6.2 of the.2011 edition);
- Modified the adhesion strength requirements of coating and plating (see 6.4, 6.3 of the.2011 edition);

1 Scope

China's national product standard for floor drains. It specifies the classification, the materials, the requirements, the test methods, the inspection rules and the marking, packaging, transport and storage of the drains set into a floor to take waste water away. A floor drain is the cheapest fitting in a bathroom and the one that causes the most complaints, because it has to do two things at once that pull against each other. It must let

water away as fast as it arrives, and it must stop the sewer from venting into the room. The second job is done by a water seal or by a mechanical seal, and the seal is also what obstructs the flow - so a drain that drains well usually smells, and one that never smells usually drains slowly. Everything in the standard sits on that trade-off. The requirements cover the drainage flow rate and the depth and retention of the water seal together, because either alone can be met by a product that fails in use, and the airtightness requirement makes the seal's performance measurable rather than assumed. The 2020 edition adds a set of requirements that come from complaints rather than from theory: resistance to cleaning agents, since the drain is the fitting most often attacked with drain cleaner and bleach; water absorption and resistance to cracking for the ceramic and composite bodies; impact resistance; and a defined appearance requirement for ceramic parts. It also adds test methods for the ball diameter, which checks that the grate will not pass an object large enough to block the trap, and for grates with a latching structure. Issued on 21 July 2020 and in force since 1 February 2021, it replaces GB/T 27710-2011.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 1176 Cast copper and copper alloy

GB/T 2828.1 Sampling inspection procedure by attributes Part

GB/T 2829 Periodic Inspection Attribute Sampling Procedure and Table (Applicable to the inspection of process stability)

GB/T 5231 Processed copper and copper alloy grades and chemical composition Review of

GB/T 5270-2005 Test Methods for the Adhesion Strength of Electrodeposition and Chemical Deposition of Metal Coating on Metal Substrate

GB/T 6461-2002 Rating of samples and test pieces of metal and other inorganic coatings on metal substrates after corrosion tests

GB/T 8170-2008 Numerical rounding rules and the expression and determination of limit values

GB/T 8801 Unplasticized polyvinyl chloride (PVC-U) pipe fitting drop test method
Determination of the Vicat softening temperature of

GB/T 8802 thermoplastic pipes and fittings

GB/T 9286-1998 Cross-cut test of paint and varnish film

GB/T 10125-2012 artificial atmosphere corrosion test salt spray test

GB/T 20878 Stainless steel and heat-resistant steel grades and chemical composition

GB/T 21873 Rubber Seals Specification for Interface Sealing Ring Material for Water Supply, Drainage and Sewage Pipes

GB/T 26311 Recycled copper and copper alloy rods

GB/T 27572 Rubber seal 110°C hot water supply pipe pipe joint sealing ring material specification

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 A device that receives and transmits ground water to the drainage system.

3.2 The floor drain that only relies on water filling to form a water seal inside to achieve the sealing function.

3.3 Floor drain that only relies on mechanical structure to achieve sealing function.