



# COMPENDIUM OF INDIAN STANDARDS ON

# VITREOUS CHINA SANITARY APPLIANCES

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# INTRODUCTION

Sanitary appliances play a crucial role in ensuring hygiene, health, and sustainability in built environments. With growing emphasis on water conservation, user safety, and improved performance, the relevance of robust standards for sanitary appliances has never been greater. The Bureau of Indian Standards (BIS), through its Civil Engineering Division Council and particularly the Sanitary Appliances and Water Fittings Sectional Committee, CED 03, has been actively engaged in formulating comprehensive Indian Standards in this domain.

This compendium is intended to serve as a ready reference for stakeholders including manufacturers, designers, engineers, regulators, policy makers, researchers and academic institutions. It brings together the Indian Standards developed in the area of sanitary appliances, ranging from specifications for water closets, wash basins, sinks, and urinals, to guidelines for installation, performance testing, and sustainable water use.

By compiling the relevant standards in a single volume, the compendium aims to promote awareness, facilitate compliance, and encourage harmonisation of product quality across the country. It also aligns with national initiatives focused on public health, water efficiency, and Swachh Bharat Abhiyan.

The publication of this compendium reflects BIS's continued commitment to support the building and construction sector with high-quality and accessible standardization resources.

## IS 2556 (Part 1) : 2021

### Vitreous China Sanitary Appliances — Specification

#### Part 1 General Requirements

IS 2556 (Part 1): 2021 specifies the general requirements for vitreous china sanitary appliances such as water closets, urinals, wash basins, and flushing cisterns. Developed by BIS under the Civil Engineering Division, the standard covers material quality, manufacturing, surface finish, dimensional tolerances, performance criteria, and test methods. The latest revision aligns with international practices, introducing updated terminology, revised definitions, and guidelines for unglazed, non-visible areas. It mandates that all visible surfaces be smooth, impervious, and free from defects like cracks or discolouration. The standard also defines visual inspection methods and limits permissible defects to ensure product quality, while outlining performance requirements and testing methods to verify durability, hygiene, and resistance to wear.

**Application and Use:** Sanitary appliances made of vitreous china are used in bathrooms and toilets for functions such as flushing, washing, and waste disposal. They are commonly installed in homes, offices, hospitals, hotels, and public sanitation facilities.

## IS 2556 (Part 2) : 2021

### Vitreous China Sanitary Appliances — Specification

#### Part 2 Specific Requirements of Washdown Water Closets

Vitreous washdown water closets are essential fixtures in modern sanitation systems, widely used in homes, commercial spaces, and public restrooms. Designed for durability, hygiene, and efficient flushing, they are expected to resist stains, scratches, and corrosion while maintaining ease of cleaning and long-term functionality. The Indian Standard IS 2556-2:2024 specifies requirements for design, dimensions, surface finish, and markings, along with tests like the ball test, smudge test, and load-bearing test to ensure performance, capacity, and durability. Compliance with this standard ensures that the product meets quality benchmarks, making it reliable and user-friendly.

**Applicability and Use:** Used in toilets across residential, commercial, and public buildings, washdown water closets ensure efficient waste disposal. They promote hygiene, water conservation, and long-term usability.

## IS 2556 (Part 3) : 2024

### Vitreous China Sanitary Appliances — Specification Part 3 Specific Requirements of Squatting Pans

Vitreous China squatting pans are a widely used toilet fixture in India, valued for their practicality, cultural acceptance, and suitability in both public and private restrooms. The Indian Standard IS 2556 (Part 3), developed by BIS, defines quality requirements covering ergonomic design, dimensions, glazing, surface finish, chemical and stain resistance, load-bearing strength, impact resistance, and proper water holding and flushing capabilities. Compliance with this standard ensures that squatting pans are durable, hygienic, and safe, offering a reliable sanitary solution with long-term performance and minimal maintenance.

**Applicability and Use:** Used in both public and private toilets across India, vitreous china squatting pans provide a culturally appropriate and hygienic sanitation option. They ensure durability, ease of maintenance, and efficient flushing.

## IS 2556 (Part 4) : 2004

### Vitreous China Sanitary Appliances — Specification Part 4 Specific Requirements of Wash Basins

Ceramic wash basins are essential fixtures in bathrooms and kitchens, used for handwashing, brushing teeth, and related tasks, and are typically connected to both hot and cold water supplies. Consumers expect them to be durable, aesthetically pleasing, easy to maintain, and resistant to cracks, chips, and discolouration. The Indian Standard IS 2556 Part 4:2004, developed by BIS, lays down specifications for vitreous ceramic wash basins particularly flat back and angle back types covering dimensions, construction, surface finish, load-bearing capacity, and drainage performance. The standard ensures that wash basins meet quality benchmarks for durability, safety, and consistent installation with plumbing systems.

**Applicability and Use:** Used in residential, commercial, and public washrooms and kitchens, ceramic wash basins serve daily hygiene needs. They offer a durable, easy-to-clean, and visually appealing solution for effective hand and face washing.

## IS 2556 (Part 5) : 1994

### Vitreous China Sanitary Appliances — Specification Part 5 Specific Requirements of Laboratory Sinks (Reaffirmed in October 2024)

Laboratory sinks made of vitreous china are robust, chemically resistant fixtures designed for demanding environments such as scientific, medical, and industrial laboratories. Known for their smooth, non-porous, stain- and scratch-resistant surfaces, these sinks offer excellent durability, easy maintenance, and reliable drainage. The Indian Standard IS 2556 (Part 5):1994 ensures that laboratory sinks meet stringent requirements related to design, dimensions, material quality, and performance, including resistance to chemical exposure and repeated use. It also prescribes five standard sizes, smooth internal surfaces for proper drainage, and quality assurance through sampling and inspection in line with IS 9140.

**Applicability and Use:** Vitreous china laboratory sinks are used in scientific, medical, and industrial labs for handling various liquids and chemical processes. They ensure durability, chemical resistance, and hygiene under rigorous working conditions.

## IS 2556 (Part 6) : 2021

### Vitreous China Sanitary Appliances — Specification Part 6 Specific Requirements of Urinals and Partition Plates

A urinal is a sanitary fixture commonly installed in public men's restrooms, designed for efficient and convenient standing urination. Mounted at ergonomic heights, urinals help minimize splashing and odours, and are connected directly to plumbing for waste disposal. Partition plates, or urinal dividers, are privacy panels made from durable, easy-to-clean materials such as vitreous china or stainless steel, enhancing user comfort and aesthetics by separating individual urinals. Consumers expect these fixtures to be durable, hygienic, visually appealing, easy to install and maintain, and environmentally friendly, with features like water efficiency and sustainable production. The Indian Standard (IS) for vitreous china sanitary appliances sets out detailed requirements for the design, dimensions, construction, and performance of urinals and partition plates, emphasizing water conservation, accessibility, and quality to ensure these products meet modern functional and environmental standards.

**Applicability and Use:** Urinals and partition plates are essential sanitary fixtures widely used in public men's restrooms for efficient, hygienic, and water-conserving urination. Urinals, mounted at ergonomic heights, ensure user comfort and minimise odours, while partition plates provide privacy and enhance the overall aesthetic and functional value. These fixtures are expected to be durable, easy to maintain, and environmentally sustainable.

## IS 2556 (Part 7) : 1995

### Vitreous China Sanitary Appliances — Specification Part 7 Specific Requirements of Accessories for Sanitary Appliances (Reaffirmed in September 2023)

IS 2556 (Part 7) establishes comprehensive standards for vitreous china accessories used in sanitary appliances, including half-round channels, footrests, traps for squatting pans, floor traps, and shower roses. These accessories are vital for effective water management, hygiene, and maintenance in bathrooms and public washrooms. The standard emphasizes the importance of strength, reliability, and a smooth, well-glazed finish to ensure durability and easy cleaning. It specifies strict requirements for materials, construction, dimensions, tolerances, and finish to guarantee a precise fit and high functionality, such as efficient water flow and non-slip surfaces. Performance testing ensures that traps and shower roses work effectively under normal conditions, while mandatory marking and BIS certification confirm compliance and consistent product quality. By adhering to these guidelines, IS 2556 (Part 7) ensures that sanitary accessories are robust, hygienic, and efficient, meeting the expectations of both consumers and industry professionals.

**Applicability and Use:** Vitreous china accessories such as footrests, traps, half-round channels, and shower roses support drainage, hygiene, and water control in bathrooms. Made from durable, glazed ceramic, they resist stains, wear, and corrosion. These products ensure efficient water flow, easy cleaning, and non-slip use. Their precise design allows reliable performance and compatibility with sanitary fixtures.

## IS 2556 (Part 8) : 2021

### Vitreous China Sanitary Appliances — Specification Part 8 Specific Requirements of Close-Coupled and One-Piece Pedestal Washdown and Syphonic Water Closets

A pedestal water closet is a type of toilet where the bowl is elevated and supported by an integral foot, commonly seen in patterns like close-coupled and one-piece designs with various flushing mechanisms such as washdown and syphonic types. These water closets are widely used in residential, commercial, and institutional buildings due to their comfort, water efficiency, and accessibility features for children and non-ambulatory disabled persons. The Bureau of Indian Standards (BIS) has developed IS 2556 (Part 8) to specify requirements for close-coupled and one-piece pedestal water closets, detailing dimensions, flushing performance (through tests like toilet paper, smudge, holding capacity, ball, sawdust, splash, and loadbearing tests), and water conservation measures. By adhering to these standards, manufacturers ensure that water closets meet expectations for comfort, hygiene, durability, and accessibility, while also supporting water-saving initiatives.

**Applicability and Use:** Pedestal water closets are suitable for installation in a wide range of settings, including homes, apartments, hotels, schools, hospitals, offices, and other public and commercial buildings. They provide comfortable, hygienic, and accessible sanitation solutions for all users, including children and individuals with mobility challenges, while supporting efficient water use and easy cleaning.



## IS 2556 (Part 9) : 2004

### Vitreous China Sanitary Appliances — Specification Part 9 Specific Requirements of Pedestal Type Bidets

A pedestal bidet is a sanitary appliance made from vitreous china, designed for personal hygiene and typically installed in residential and institutional toilets. Supported by an integral base that elevates it from the floor, pedestal bidets come in various patterns, including those with a flushing rim and spray hole or an over-rim water supply. Constructed as a one-piece unit with provisions for taps, sprays, overflow, and floor fixing, these bidets are engineered for durability, hygiene, and compatibility with standard plumbing. The Bureau of Indian Standards (BIS) has specified requirements for shape, finish, dimensions, construction, and load-bearing capacity to ensure quality and safety. Commonly found in homes, hotels, and healthcare facilities, pedestal bidets offer a combination of comfort, sanitation, and robust performance, with quality control measures like glazing standards and BIS marking ensuring reliability.

**Applicability and Use:** Pedestal bidets are ideal for installation in homes, hotels, hospitals, and other establishments where enhanced personal hygiene and comfort are priorities. They provide a reliable and hygienic solution for personal cleansing, suitable for users of all ages and needs.

## IS 2556 (Part 14) : 2024

### Vitreous China Sanitary Appliances — Specification Part 14 Specific Requirements of Integrated Squatting Pans

An integrated squatting pan is a seamless ceramic sanitary appliance designed for use in a squatting position, typically installed at floor level and often featuring an integral 'S' trap for direct plumbing connection. Widely used in homes, public toilets, schools, railway stations, and other public facilities, these pans are made from vitreous china and come in various patterns and sizes to suit different installation needs. The Bureau of Indian Standards (BIS) has established IS 2556 (Part 14): 2024 to specify design, performance, and quality requirements, including dimensions, construction, surface finish, and water efficiency. The standard also mandates rigorous flushing and durability tests, uniform glazing for hygiene, and clear product markings for traceability. With a focus on sustainability and effective sanitation, integrated squatting pans provide reliable, hygienic, and environmentally friendly solutions for diverse settings.

**Applicability and Use:** Integrated squatting pans are ideal for installation in residential, public, and institutional toilets where water-based sanitation is required. They offer a durable, easy-to-clean, and water-efficient solution for safe and hygienic waste disposal in high-traffic and community settings.

## IS 2556 (Part 15) : 2024

### Vitreous China Sanitary Appliances — Specification

#### Part 15 Specific Requirements of Universal Water Closet

A universal water closet is a floor-mounted sanitary appliance made from vitreous china, designed to be accessible and user-friendly for a wide range of users, including those with reduced mobility. Available in various sizes and with P-trap or S-trap configurations, these water closets are suitable for domestic, public, institutional, and healthcare settings, providing a versatile and efficient sanitation solution. The Bureau of Indian Standards (BIS) has established IS 2556 (Part 15): 2024 to specify comprehensive requirements for design, construction, dimensions, finish, and performance, including stringent flushing and load-bearing tests. The standard also encourages water efficiency and accessibility, aligning with sustainable development goals and modern manufacturing practices. Marking and labelling provisions ensure product traceability and quality assurance, making universal water closets robust, hygienic, and resource-conscious options for diverse sanitation needs.

**Applicability and Use:** Universal water closets are ideal for installation in homes, public restrooms, hospitals, and other facilities requiring accessible and efficient sanitation. They provide a comfortable, hygienic, and inclusive solution for all users, including those with mobility challenges.

## IS 2556 (Part 16) : 2024

### Vitreous China Sanitary Appliances — Specification

#### Part 16 Specific Requirements of Washdown Wall Mounted Water Closets

Wall-mounted water closets are a popular choice in modern residential and commercial bathrooms due to their space-saving design, sleek aesthetics, and enhanced hygiene. Their wall-mounted nature allows for a cleaner, clutter-free appearance, easier floor cleaning, and compatibility with various interior styles, making them especially favored in public facilities and luxury settings. The Indian Standard IS 2556 (Part 16:2024) specifies requirements for wall-mounted vitreous china water closets, covering aspects such as material quality, glazing, construction, defect tolerances, and minimum thickness to ensure durability and ease of maintenance. The standard also emphasizes space optimization, water efficiency, and robust performance, including load-bearing capacity and concealed plumbing for a streamlined look. Products bearing the BIS mark are guaranteed to meet these high standards, assuring buyers of safety, quality, and long-term performance.

**Applicability and Use:** Wall-mounted water closets are ideal for installation in homes, hotels, offices, and public restrooms where space optimization, modern aesthetics, and easy cleaning are priorities. They provide a hygienic, durable, and visually appealing solution suited to both high-traffic and luxury environments.



## IS 2556 (Part 17) : 2001

### Vitreous China Sanitary Appliances — Specification Part 17 Specific Requirements of Wall Mounted Bidets

Wall-mounted bidets are sanitary fixtures designed for personal hygiene, specifically for washing after toilet use, and are mounted directly onto the wall for a modern, space-saving bathroom solution. Made from vitreous china as single units, these bidets are securely fixed to the wall using corrosion-resistant bolts and a concealed support frame, ensuring stability and durability. The Indian Standard outlines requirements for construction, dimensions, finish, and installation, including specific tap and spray hole configurations for different patterns, as well as robust load-bearing capabilities. Each bidet must have a waste outlet and may include an overflow, with installation designed to prevent strain on plumbing. Rigorous testing, including a 400 kg load test, ensures the bidet's safety and reliability in daily use.

**Applicability and Use:** Wall-mounted bidets are ideal for modern homes, hotels, and upscale public restrooms where space-saving, hygiene, and contemporary aesthetics are desired. They provide a durable, easy-to-clean, and secure solution for enhanced personal hygiene in both residential and commercial settings.