



उत्पाद मैनुअल
आई एस 3006:1979 के अनुसार
रासायनिक रूप से प्रतिरोधी काँचाभ स्टोनवेयर पाइप
और फिटिंग के लिए

दस्तावेज संख्या – पी एम/आई एस 3006/1/ जनवरी 2022

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसि द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

**PRODUCT MANUAL FOR
CHEMICALLY RESISTANT GLAZED STONEWARE PIPES
AND FITTINGS ACCORDING TO IS 3006:1979**

Document No.- PM/ IS 3006/1/Jan 2023

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग
Manak Bhawan, 9, Bahadur Shah Zafar Marg
नई दिल्ली- ११०००२
New Delhi – 110002



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1.	Product	:	IS 3006 : 1979
	Title	:	Chemically Resistant Glazed Stoneware Pipes and Fittings
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	---
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	2 Nos for all tests
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day :		
	(i) Internal diameter (ii) Length and straightness (iii) Hydraulic test	(iv) Thickness (v) Crushing strength (vi) Dimensions of fittings and Grooving	
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 3006 : 1979 with the following scope:		
	Name of the product	Chemically Resistant Glazed Stoneware Pipes and Fittings	
	Type of pipes/fittings	(a) As per clause 1.1 of IS 3006 : 1979 (b) Right hand and left hand fittings	
	Sizes	Internal diameter and length of pipes and fittings (as applicable)	

BUREAU OF INDIAN STANDARDS
Manak Bhawan, 9, Bahadur Shah Zafar
Marg, New Delhi – 110002

ANNEX A**Grouping Guidelines**

1. Glazed stoneware pipes and fittings are classified as given below:
 - a) Internal Diameter – 100 mm, 150 mm, 200 mm, 250 mm, 300 mm, 350 mm, 400 mm, 450 mm, 500 mm and 600 mm
 - b) Length of pipe – 600 mm, 750 mm and 900 mm
 - c) Types of pipes/fittings:
 - Straight and taper pipes
 - Bends
 - Taper Bends
 - Junctions
 - Half-section channels, straight and taper
 - Channel junctions
 - Channel bends
 - Channel interceptors
 - Gully Traps
 - Inspection pipes
 - d) Right-handed and left-handed fittings.
2. Glazed stoneware pipes are grouped as given below based on internal diameter and class of pipes:

Group	Sizes (Internal Dia), mm
Group 1	Upto 150
Group 2	200-300
Group 3	350-450
Group 4	500-600

3. Considering the above, following grouping guidelines for GoL/CSoL have been developed:
 - a) One pipe of any length and any size (Internal Diameter) from each group shall be tested for all the requirements to cover all the lengths of pipes for all the sizes in that particular group.
 - b) One sample from each type of fittings as per (c) above and right-handed or left-handed (as applicable) from each size group shall be tested for all the requirements to cover all fittings of that type and sizes in that group.

- c) The Firm shall declare the varieties of Pipes and Fittings they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
- d) During the operation of the Licence, BO shall ensure that all the types and sizes covered in the Licence are tested in rotation, to the extent possible.

ANNEX B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	General Quality as per Cl 4	Light hammer
2	Hydraulic Test as per Cl 6.2	Hydraulic Pressure Testing Machine Stop Watch
3	Absorption Test as per Cl 6.3	Oven/ Muffle furnace/ Hot Plate Desiccators Weighing Balance (accuracy of 0.1g) Heater/Water Bath
4	Test for Acid Resistance as per Cl 6.4	Sulphuric Acid (4.90 %, Specific Gravity 1.84) Weighing Balance (accuracy of 0.01g) Oven
5	Test for Alkali Resistance as per Cl 6.5	Saturated Solution of Magnesium Sulphate (Conforming to IS 2730, Specific Gravity 1.295 to 1.308) Hot plate Oven/Drier
6	Crushing Strength Test as per Cl 6.6	Crushing Strength Testing machine Bearing Strips
7	Internal Diameter per Cl 9 Thickness as per Cl 10 Length and Straightness as per Cl 11 Angle of bend as per Cl 12.1 , 12.1.1	Measuring Scale Vernier Callipers Micrometer Depth Gauge Arrangement for angle measurement

The above list is indicative only and may not be treated as exhaustive.

ANNEX C**SCHEME OF INSPECTION AND TESTING**

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirements of IS 3006:1979. In addition, each pipe and fitting shall be marked with Control Unit Number for traceability.

4. CONTROL UNIT – 500 pipes or fittings or part thereof of the same type and size from one fire chamber load shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

6. REJECTIONS – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
4	General Quality	4	IS 3006	R		All pipes and fittings	
5	Glazing	5	IS 3006	R		All pipes and fittings	
6.2	Hydraulic Test	6.2	IS 3006	R	Every pipe and fitting, except channel fittings, shall be subject to the hydraulic test		In case of failure, only those found conforming shall be marked.
6.3	Absorption Test	6.3	IS 3006	R	2	Each control unit	The control unit shall be rejected, if found failing.
6.4	Test for Acid Resistance	6.4	IS 3006	R	2	Each control unit	
6.5	Test for Alkali Resistance	6.5	IS 3006	R	2	Each control unit	
6.6	Crushing strength test	6.6	IS 3006	R	2	Each control unit	
Section A							
9	Internal diameter and tolerances	9	IS 3006	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
10	Thickness of barrels, socket and bends	10	IS 3006	R			
11	Length and straightness of barrels or straight and taper pipes	11	IS 3006	R			
12	Tapers, bends and junctions	12	IS 3006	R			
13	Socket	13	IS 3006	R			
14	Grooving	14	IS 3006	R			

Section B					
16	Dimensions	16	IS 3006	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity
17	Spigots and Sockets of fittings	17	IS 3006	R	
18	Grooving	18	IS 3006	R	

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval of BO Head.