

**SCHEME OF TESTING AND INSPECTION
FOR CERTIFICATION OF
ASBESTOS CEMENT PRESSURE PIPES
(LIGHT DUTY) ACCORDING TO IS 9627:1980**

1. **LABORATORY** – A laboratory shall be maintained which shall be suitably equipped and staffed where different tests given in the specification shall be carried out in accordance with the methods given in the specification.
2. **TEST RECORDS** - All records of tests, inspection and calibration shall be kept in suitable forms approved by the Bureau.
 - 2.1 All testing apparatus/measuring instruments shall be periodically checked and calibrated and records of such checks/calibration shall be maintained.
 - 2.2 Copies of any records and other connected papers that may be required by the Bureau shall be made available at any time on request.
3. **QUALITY CONTROL** – It is recommended that, as far as possible, Statistical Quality Control (SQC) methods may be used for controlling the quality of the product during production as envisaged in this Scheme [See IS 397(Part I):1972, IS 397(Part 2):1985 and IS 397(Part 3):1980].
 - 3.1 In addition, effort should be made to gradually introduce a Quality Management System in accordance with IS/ISO 9000 series as appropriate to the activities of the organization.
4. **STANDARD MARK** – The Standard Mark, as given in Column (1) of the First Schedule of the licence, shall be stamped on each pipe, provided always that the pipe to which this mark is applied conforms to every requirement of the specification.
 - 4.1 **MARKING** - In addition, each pipe shall be legibly and indelibly marked with the following information :-
 - a) Manufacturer's name or trade mark, if any.
 - b) Date of manufacture;
 - c) Nominal diameter;
 - d) Class of pipe with suffix 'LD', and
 - e) Pictorial warning sign as given in IS 12801(Pt.2):1987

4.1 All delivery of asbestos cement pipes shall be accompanied by a safety rules sheet as given in Is 11769(Pt.1):1987 and Pictorial warning sign giving precautionary notice as given in Fig.1 of Is 12081(Pt.2):1987 shall be printed on literature.

5. **LEVELS OF CONTROL** - The tests, as indicated in Table 1 attached and at the levels of control specified therein, shall be carried out on the whole production of the factory which is covered by this scheme and appropriate records and charts maintained in accordance with paragraph 2.0 above. All the production which conforms to the Indian Standards and covered by the licence shall be marked with certification mark of the Bureau.

5.1 On the basis of tests and inspection results, decision regarding conformity or otherwise of the control unit to a given requirement shall be made.

5.1.1 **CONTROL UNIT** - For the purpose of this scheme, 200 pipes of same class and sizes or part thereof manufactured under similar conditions on the same day shall constitute one control unit.

5.1.2 All the pipes of a control unit shall be tested for works hydraulic pressure tightness test. Those failing in the test shall not be considered for marking purposes.

5.1.3 One pipe out of 50 (or part thereof) pipes of a control unit shall be checked for dimensional requirements, regularity of internal diameter and straightness. In case of any failure, each pipe shall be checked and only those passing the requirements shall be considered for marking.

5.1.4 One pipe from each control unit shall be selected at random and subjected to the tests specified in Cl.2.2.1 to 2.2.3 of IS 9627:1980. Conformity to clause 3.2.2 shall also be verified. If a sample fails to meet the requirements of any of the tests, the tests in which it fails shall be repeated on two further samples selected from the same control unit. If any of these further samples fails, the control unit shall be rejected.

6.0 In respect of all other clauses of the specification and at all stages of manufacture the factory shall maintain appropriate control and checks to ensure that their product conforms to the various requirements of the specification.

7.0 **REJECTIONS** – A separate record shall be maintained giving information relating to the rejection of the production not conforming to the requirements of the specification and the method of its disposal. Such material shall in no circumstances be stored together with that conforming to the specification.

8.0 **SAMPLES** – The licensee shall supply, free of charge, the samples required in accordance with the Bureau of Indian Standards (Certification) Regulations, 1988, as subsequently amended, from the factory or godowns. The Bureau shall pay for the samples taken by it from the open market.

9.0 **REPLACEMENT** – Whenever a complaint is received soon after the goods with Standard Marks have been purchased and used, and if there is adequate evidence that the goods have not been misused, defective goods or their components are replaced or repaired free of cost by the licensee in case the complaint is proved to be genuine and the warranty period (where applicable) has not expired. The final authority to judge the conformity of the product to the Indian Standard shall be with the Bureau.

9.1 In the event of any damages caused by the goods bearing the Standard Mark, or claim being filed by the consumers against BIS Standard Mark and not “conforming to” the relevant Indian Standard, entire liability arising out of such non conforming product shall be of licensee and BIS shall not in any way be responsible in such cases.

10.0 **STOP MARKING** – The marking of the product shall be stopped under intimation to the Bureau if, at any time, there is some difficulty in maintaining the conformity of their product to the specification, or the testing equipment goes out of order. The marking may be resumed as soon as the defects are removed under intimation to Bureau.

10.1 The marking of the product shall be stopped immediately if directed to do so by Bureau for any reason. The marking may then be resumed only after permission by the Bureau. The information regarding resumption of markings shall also be sent to the Bureau.

11.0 **PRODUCTION DATA** – The licensee shall send to BIS as per the enclosed proforma-1 to be authenticated by a Chartered Accountant or by the manufacturer by giving an affidavit/undertaking, a statement of quantity produced, marked and exported by him and the trade value thereof at the end of each operative year of the licence.

Table 1.....

IS 9627:1980
ASBESTOS CEMENT PRESSURE PIPES (LIGHT DUTY)
TABLE 1 LEVELS OF CONTROL
(Para 5 of the Scheme of Testing and Inspection)

TEST DETAILS			LEVELS OF CONTROL		
Cl.	Requirement	Test Methods Clause Reference	No. of samples	Frequency	Remarks
2	Materials/Composition	2.1 IS 9627:1980	One	Each consignment	In case the consignment of any material is covered by a test certificate or the material is ISI marked and further testing is necessary.
4	Dimensions & Tolerances	4.1, 4.2, 4.3, Table 3 -do-	One	50 pipes or part thereof from each control unit	In case of failure refer to clause 5.1.3 of the text (Gauges Steel Tapes & Tamplates)
5.	Finish	5.1,5.2, 5.3 -do-	-do-	All pipes	
4.4	Straightness test	12 IS 5913:1989	One	50 pipes or part thereof from each control unit	In case of failure refer to clause 5.1.3 of the text.
6.2	Works Hydraulic pressure tightness test	9 -do-	All pipes		
2.2.1, 3.2.2	Hydraulic Bursting Stress	10 -do-	One	Each control unit	In case of failure refer to clause 5.1.4 of the text.
2.2.2	Transverse Crushing stress	8 -do-	One	-do-	In case of failure refer to clause 5.1.4 of the text (See Note 'A')
2.2.3	Longitudinal Bending Stress	11 -do-	One	-do-	-do- Please see Note B
7	Joints	7.1 to 7.5 IS 9627:1980		As agreed to between purchaser and the manufacturer.	Subject to clause 11 of IS 9627:1980

NOTE : ('A') This test is applicable in case of pipes of diameter larger than 150 mm.

NOTE : ('B') This test is applicable only for pipes of diameter 150 mm and less.