

SCHEME OF TESTING AND INSPECTION  
FOR CERTIFICATION OF  
RIGID PLAIN CONDUITS OF INSULATING MATERIALS FOR  
ELECTRICAL INSTALLATIONS ACCORDING TO  
IS:9537(Part III)-1983

1. A laboratory inspection department shall be maintained which shall be suitably equipped and staffed, where different tests shall be carried out in accordance with the methods given in the specification.

1.1 All the testing apparatus shall be periodically checked and calibrated and records of such checks shall be maintained.

2. RECORDS – All records of tests and inspection shall be kept in suitable forms approved by the Bureau.

2.1 Copies of any records and charts that may be required by the Bureau shall be made available at any time on request.

2.2 It is recommended that, as far as possible, statistical quality control (SQC) methods may be used for controlling quality during production as envisaged in this scheme (see IS:397(Part I)-1972, IS:397(Part II)-1975 and IS:397(Part III)-1980).

3. MARK – The standard mark as given in column 1 of the First Schedule of the licence shall be stenciled on the body in indelible ink or applied in form of transfix label or embossed on each conduit preferably at 50mm from one end, provided always that each conduit to which this Mark is applied conforms to every requirement of the specification.

3.1 In addition each conduit shall be clearly and durably marked with the following:

- a) Manufacturer's name and/or trade mark, if any;
- b) Nominal size of the conduits;
- c) Country of manufacture; and
- d) Information relating to classification as given in clause 5.1 of the standard.

4. In addition, the label attached to each bundle of conduits shall contain the following information:

- a) Manufacturer's name and/or trade mark, if any;
- b) Brand name, if any;
- c) Nominal size of the conduits;
- d) Total length
- e) Made in India; and
- f) Identification in code or otherwise to enable the date and lot of manufacture to be traced back to factory records.

5. The tests and inspection as indicated in Table 1 and at the levels of control specified therein, shall be carried out on the whole production of the factory covered by this scheme and appropriate records and charts maintained in accordance with Paragraph 2 above. All the production which conforms to the Indian Standard and covered by this licence shall be marked with ISI Certification Mark.

5.1 All conduits of same classification and size manufactured in a day shall constitute one control unit for the purpose of tests according to this scheme.

6. In respect of all other clauses of the specifications and at all stages of production, the factory shall maintain appropriate controls and checks to ensure that their product conforms to the various requirements of the specification.

7. Rejections – A separate record shall be maintained giving information relating to the rejection of conduits which do not conform to the specification and the methods of their disposal. Such conduits shall, in no case, be stored together with those conforming to the specification.

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

9. Replacement – Whenever a complaint is received soon after the goods with ISI Mark 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 conformity of the product to the Indian Standard shall be with the Bureau.

10. Suspension of Marking – The marking of the product shall be suspended under intimation to the Institution, if, at any time, there is some difficulty in maintaining the conformity of the product to the specification, or the testing equipment goes out of order, or if directed to do so by the Bureau for any reason. The marking may be resumed as soon as the defects are removed or when the Bureau given the permission to do so. The information regarding resumption of marking shall also be sent to the Bureau.

11. The licence shall send to the Bureau, as per the enclosed performa, statement of the quantity produced, marked with and exported by him and the trade value thereof during the half year ending 30 June and 31 December. This statement is required to be forwarded to the Bureau on or before the 31<sup>st</sup> day of July and January for the preceding half year.

IS:9537(Part III)-1983  
RIGID PLAIN CONDUITS OF INSULATING MATERIAL FOR ELECTRICAL INSTALLATIONS  
TABLE 1 LEVELS OF CONTROL  
(Para 5 of the Scheme of Testing and Inspection)

Test Details					Levels of control	
Clause	Requirement	Test Method Clause Reference		No. of sample	Frequency	Remarks
8	Construction	8	IS:9537(Pt I):1980	-Each conduit -		
6	Marking	6.1	IS:9537(Pt III):1983	-do-		
6.2	Durability of marking	6.4	IS:9537(Pt I):1980	10	Each control unit	i)The sample shall be picked up at random from the production line.
7	Dimensions	7.1 to 7.3	IS:9537(Pt III):1983	2	Every hour	
7.4	Uniformity of wall thickness	7.4	-do-	3	Every control unit	ii)In case of failure in any of the test a further sample of this product shall be drawn and tested for that requirement and those tests which may have influenced the result of that test. In case second set of samples fails, the control unit shall not be marked. Simultaneously the use of ISI mark shall be suspended. Marking shall be resumed only when samples drawn from five consecutive control units conforms to the requirements of the standard.
9.2	Bending test (at room temperature)	9.2	-do-	3	-do-	
9.3	Compression test	9.3	IS:9537(Pt I)-1980	3	Conduits of same classification and size manufactured in a week	
9.5	Collapse test	9.5	-do-	3	-do-	
10	Resistance to heat	10	IS:9537(Pt III):1983	3	-do-	
11	Resistance to burning	11	IS:9537(Pt I):1980	3		
12	Electrical characteristics a) Electrical strength b) Insulation Resistance	12.1.1 12.1.2	-do-	3	-do-	

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(Para 5 of the Scheme of Testing and Inspection)

Test Details				Levels of control		
Clause	Requirement	Test Method Clause Reference		No. of sample	Frequency	Remarks
9.2	Bending test (at low temperature)	9.2	IS:9537(Pt III):1983	3	Conduits of same classification and size manufactured in a fortnight.	-do-
9.1	Impact test	9.4	IS:9537(Pt I):1980	12	Conduits of same classification and size manufactured in three months	Minimum nine samples shall pass