

# PRODUCT MANUAL FOR CEILING ROSES ACCORDING TO IS 371:1999

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.

1.	Product	:	IS 371:1999				
	Title	:	Ceiling Roses				
	No. of Amendments	:	4				
2.	Sampling Guidelines:						
a)	Raw material	:	N.A.				
b)	Grouping guidelines	:	Each variety of Ceiling Roses is to be tested for GoL/CSol				
c)	Sample Size	:	10 nos.				
3.	List of Test Equipment	:	Please refer ANNEX – A				
4.	Scheme of Inspection and Testing	:	Please refer <u>ANNEX – B</u>				
5.	Possible tests in a day		Please refer ANNEX – C				
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6.	Scope of the Licence:						
	Licence is granted to use Standard Mark as per IS 371:1999 with the following scope:						
	Rated Voltage						
	Rated Current		6A				
	Classification		As per Cl. 8.1 of IS 371:1999				
7.	Any other guidelines:		Please refer <u>Annex-D</u> for Guidelines for Outsourcing of Moulded Bodies				

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### ANNEX A

# **List Of Test Equipment**

# Major test equipment required to test as per the Indian Standard

Sl. No	Test Equipment	Tests Used in with Clause reference			
1	Vernier Caliper	Cl. 10, Cl. 21			
2	Standard Test Finger, Voltmeter, Voltage Source with indicator	Cl. 11			
3	Low Voltage Source with Voltmeter and Ammeter	Cl. 12			
4	Torque Screw Driver	Cl. 13			
5	Mechanical, Electrical and Thermal test setup for screw-less terminals	Cl. 13.8, Cl. 13.9			
6	Strain Relief test setup	Cl. 14.3			
7	Load carrying capability test setup, Electric Oven	Cl. 14.4			
8	Humidity controlled cabinet, thermometer, hygrometer	Cl. 15			
9	Megger	Cl. 15.5			
10	High Voltage Tester	Cl. 15.6			
11	Temp rise test equipment with resistive load, Mounting arrangement, Thermocouples and temp indicator	Cl. 16			
12	Impact test apparatus	Cl. 17			
13	Heating cabinet, Ball Pressure apparatus, Magnifying glass	Cl. 18			
14	Glow wire test apparatus, Tracking test apparatus	Cl. 19			

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

#### ANNEX B

### **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 equipment.
- **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 371:1999.
- **4. LEVELS OF CONTROL** The tests as indicated in column 1 of <u>Table 1</u> and the levels of control in column 3 of <u>Table 1</u>, 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.
- **4.1** All the production which conforms to the Indian Standard and covered by the licence should be marked with Standard Mark.
- 5. CONTROL UNIT- All c

eiling roses of the same type manufactured in a day shall constitute a control unit.

**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	Levels of Control				
Cl.	Requirement	Test Me		requirement	No. of	Frequency	Remarks
		Clause	Reference	R: required (or) S: Sub- contracting permitted	Sample		
15.7	Flash Test	15.7	IS 371	R	Each Ceiling Rose		
9	Marking	9	IS 371	R	Each	lling Rose	
10	Dimensions	10	IS 371	R		Each Control Unit	In case of any failure, five samples from improved lot shall be tested. The original frequency shall be restored if all the samples pass.
11	Accessibility of live parts	11	IS 371	R	3		
12	Provision of Earthing	12	IS 371	R			
13	Terminals	13.1, 13.2	IS 371	R			
13	Terminals	13.3 to 13.9	IS 371	R		Once in a month	
15	Resistance to moisture and humidity, Insulation Resistance and Electric Strength	15	IS 371	R	3		
16	Temperature Rise	16	IS 371	R			
17	Mechanical Strength	17	IS 371	R		Once in 3 months or whenever there is a change in design/ raw material	
20	Screws, current carrying parts and connections	20	IS 371	R			
14	Construction	14	IS 371	R	3		
18	Resistance to Heat	18	IS 371	R			
21	Creepage distance and clearance	21	IS 371	R			
19	Resistance to abnormal heat fire and tracking	19	IS 371	R			
22	Resistance to excessive residual stresses and to rusting	22	IS 371	S			

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 by BO Head.

# ANNEX C

# Possible Tests in a day

- 1. Marking
- 2. Dimensions
- 3. Accessibility of live parts
- 4. Provision for earthing
- 5. Terminals
- 6. Mechanical Strength

#### ANNEX D

### **Guidelines for Outsourcing of Moulded Bodies**

a) Outsourcing of moulding facilities may be permitted with the following organizations (Moulder):

#### For Domestic Manufacturers

- Any dedicated moulding unit in the conforming/ authorized industrial area and located under the jurisdiction of the same Branch Office.
- Any other unit of the Licensee/ Applicant or their sister concern, which is having a
  valid BIS licence for the same product under the jurisdiction of the same Branch
  Office.

#### For Foreign Manufacturers

- Any dedicated moulding unit in the conforming/ authorized industrial area and located in the same city where the applicant/ licensee is located.
- b) The dedicated moulder shall not carry out moulding for units other than the particular Applicant/ Licensee.
- c) The Manufacturer shall take the following actions:
  - Enter into an agreement with the moulder which shall comprise, interalia, the terms and conditions for moulding including the condition of dedicated moulding, period of agreement etc.
  - Declare the Items and Brands for which he intends to outsource moulding.
  - Declare the name, ownership details, address, details of the responsible person, phone number, etc. of the moulder.
- d) It shall be the responsibility of the licensee (the firm which is outsourcing the moulding activity) to ensure that no finished material is produced or assembled at any place other than the licensed premises and he shall be responsible for any misuse of ISI mark at the moulder's premises. An Undertaking to this effect shall be furnished to BIS.
- e) Records of raw material issued date-wise, moulded material received back date-wise and item-wise shall be maintained by the licensee. Similar records shall also be maintained by the moulder.
- f) The moulder shall ensure that there is a separate dedicated space for keeping moulded components as well as the raw materials received from the licensee. Colour coding of bins/ separate storage location etc. may be used to ensure easy and quick traceability. Appropriate records are to be maintained at both the units.
- g) The licensee shall ensure that there are adequate means of ensuring the quality of incoming outsourced moulded bodies.

- h) For applications received with request for outsourcing of moulding facilities, a special inspection of the moulder's premises shall be carried out to adjudge the capability of the moulder in addition to the preliminary inspection at the applicant's premises. Special Inspection Charges and any other charges, as applicable, for this visit shall be collected from the applicant in advance. The process flow chart submitted by the applicant shall clearly indicate the outsourcing of moulded bodies. The recommendations for GoL shall include details on outsourcing of moulding operation by the firm. The details of outsourcing may also be included in the GoL intimation letter.
- i) For existing licensees who intend to outsource the moulding facility, the licensee shall submit a fresh process flow chart indicating the outsourcing of moulded bodies. The permission for outsourcing may be given to the licensee after complying with all the procedures including verification visit to the moulder's premises.
- j) Whenever there is a change in the moulder, the licensee has to enter into a fresh agreement with the new moulding unit. The permission for outsourcing may be given to the licensee after complying with all the procedures including verification visit to the moulder's premises.
- k) During the operation of the licence, records required to be maintained at the licensee end with respect to outsourced moulding shall be verified during surveillance visit at the licensee's premises by BIS Certification Officer.
- 1) BIS Officer(s) shall have access to the moulder's premises and if at any time the same is denied, permission for outsourcing shall be withdrawn. An undertaking in this respect shall be obtained.
- m) For Domestic manufacturers, the visit to moulder's premises may be taken up as a special visit as and when needed. Special Inspection Charges for this visit shall be collected from the licensee after the visit. An undertaking from the licensee regarding payment of such charges shall be obtained.
- n) For Foreign manufacturers, BIS shall maintain surveillance over the moulder's premises in addition to the manufacturer's premises. Special inspection charges and all other applicable charges for this visit shall be payable by the licensee.

#### Note:

- The Indian Standard does not impose any restriction on the manner/ method of Marking so long as the Durability clause is complied with. As such, the product may be marked with the Standard Mark, CM/L Number, Manufacturer's Brand and other markings during the process of moulding itself, in which case all the conditions stated above shall apply.
- However, if the Marking on the moulded bodies is done at the Licensee's own premises by other means such as pad printing/ laser marking etc, the moulded component may be treated as any other bought out component/ raw material as these are not marked with the ISI Mark or CM/L Number during the outsourced moulding process. Notwithstanding this, the Applicant/ Licensee shall ensure that there are adequate means of ensuring the quality of the incoming components.