



**PRODUCT MANUAL FOR
ASBESTOS CEMENT BUILDING BOARDS
ACCORDING TO IS 2098: 1997**

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 2098: 1997
	Title	:	ASBESTOS CEMENT BUILDING BOARDS
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	a) Cement – Clause 3 of IS 2098: 1997 b) Asbestos Fibre/Pozzolanic material, fillers and pigment – Clause 3 of IS 2098: 1997 c) Colouring material: Clause 4 of IS 2098: 1997
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	2 Boards
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) General appearance and finish (Clause 6)		
	(ii) Dimensions – length, width and thickness (Clause 7 and 8.3)		
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 2098: 1997 with the following scope:		
	Name of the product	ASBESTOS CEMENT BUILDING BOARDS	
	Class	A, B or C	
	Nominal thickness of board	Upto and including ---- mm	

ANNEX A**Grouping Guidelines**

1. Asbestos Cement Building Boards as per IS 2098: 1997 are classified as below:

Class of Boards	Length (mm)	Width (mm)	Thickness (mm)	Minimum Load Bearing Capacity (kg)	
				Average	Individual
A	2440, 1830, 1220	1220	6	20	15
B	2440, 1830, 1220	1220	5	15	10
C	2440, 1830, 1220	1220	4	15	10

2. Boards of other dimensions and thickness shall be supplied as per mutual agreement between manufacturer and supplier.

3. Manufacturing of Boards of higher thickness are more critical than manufacturing of Boards of less thickness.

4. Considering the above, following grouping guidelines are developed for GoL/CSoL:

- a) One sample of Building Board from each Class with maximum thickness shall be tested for all requirements to cover all Boards of thickness upto and including the thickness tested for that particular Class of Board.
- b) However, if Boards of Class A is tested, then Boards of Class B and C may be included in the Scope of Licence. Similarly, if Boards of Class B is tested, then Boards of Class C may be included in the Scope of Licence.

5. The Firm shall declare the varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

6. During the operation of the Licence, BO shall ensure that all varieties 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	Tolerances on length and width (Clause 7) Thickness (Clause 8.3)	<ul style="list-style-type: none"> - Measuring Tape/ Steel tape - Thickness gauge with flat anvil of diameter minimum 9 mm
2	Load bearing capacity (Clause 8.2)	<ul style="list-style-type: none"> - Steel scale - Thickness gauge - Thermostatically controlled water bath - Air conditioner and room heater - Sheet cutter - Load applying arrangement as per Fig 4 of IS 5913 for applying load at uniform rate
3	Water absorption test (Clause 8.4)	<ul style="list-style-type: none"> - Steel scale - Thermostatically controlled water bath - Weighing balance - Hot Air Oven - Damp cloth - Desiccator with Anhydrous calcium chloride - Sheet cutter

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 requirement of IS 2098: 1997.

4. CONTROL UNIT – All Asbestos Cement Building Boards of same class and thickness manufactured under similar conditions of production in a day 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 Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
3	Composition	3	IS 2098	-	One	Each consignment	Further testing is not required if consignment received with manufacturers certificate or ISI marked
4	Colouring matter	4	IS 2098	-	One		Further testing is not required if consignment received with manufacturers certificate
7.1,7.2, 8.3	Tolerances on length and width, Thickness	7.1,7.2, 8.3	IS 2098	R	1% subject to a minimum 5 boards	One control Unit	In case of failure all boards shall be tested and defective boards rejected
6	General appearance and Finish	6	IS 2098	R	Each Board	-	-
8.2	Load bearing capacity test	8.2 7.2	IS 2098 IS 5913	R	Three	Each Control Unit	In case factory works in 3 shifts, at least one sample shall be drawn from each shift. If one sample fails twice the number of samples shall be drawn and tested from the same control unit and all the samples shall pass. If anyone sample fails then the control unit shall be rejected.
8.4	Water absorption test	8.4 4	IS 2098 IS 5913	R	Three	Each Control Unit	

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