



**PRODUCT MANUAL FOR
TRANSPARENT FLOAT GLASS-SPECIFICATION
ACCORDING TO IS 14900 : 2018**

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 14900 : 2018
	Title	:	Transparent Float Glass-Specification
	No. of Amendments	:	0
2.	Sampling Guidelines:		
a)	Raw material	:	No specific requirement
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	3 pcs of 1m x 1 m
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 :		
	All Tests possible		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 14900:2018 with the following scope:		
	Name of the product	Transparent Float Glass	
	Thickness		
	With or without optional requirements (Bloom)		

ANNEX- A
GROUPING GUIDELINES

The following grouping guidelines shall be followed for Grant of Licence/Change in scope of licence for Transparent Float Glass as per IS 14900:2018:

- i) For covering all thicknesses in a range within the scope of licence, a sample of the highest and lowest thicknesses may be drawn for testing.
- ii) Licence may be granted or change in scope may be allowed for covering all the thicknesses within the range if the samples are found passing in testing.
- iii) However, it shall be ensured that the firm is having all the necessary manufacturing and testing facilities for the manufacture and testing of the varieties to be included in the licence.
- iv) During the operation of the licence, samples of all varieties shall be drawn by rotation.

ANNEX- B

List Of Test Equipment

Major test equipment required to test as per the Indian Standard

S. No.	Tests used in with Clause Reference	Test Equipment
1	Characteristic, Cl.4.1	UV test setup with Shortwave UV Lamp, Dark Area
2	Visual Light Transmission, Cl.4.2	Spectrophotometer/ CIE Standard Illuminant and Test setup as per Fig 3
3	Dimensions and Tolerances, Cl.4.3	Micrometer Vernier Calliper Steel Tape
4	Optical faults, Cl.4.4	Zebra Test Setup Measuring Tape Fluorescent tubes
5	Visual Faults, Cl.4.5	Screen Point source projector Glass sample with spot fault Distortion gauge Fluorescent lamps Black mat surface coated wall Specimen glass Measuring tape
6	Defects on cut side Cl.4.6	Vernier Calliper
7	Bloom, Cl.4.7	Electric Furnace Optical Pyrometer

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 equipment.

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

3. PACKAGING AND MARKING – The Standard Mark as given in Schedule of the license and Licence Number (i.e. CM/L.....) shall be marked on each piece of float glass, provided always the glass thus marked conforms to all the requirement of the specification.

3.1 Glass shall, be packed in a suitable shock-absorbing manner which shall be as agreed between manufacturer and the purchaser.

3.2 Each package of float glass shall be marked with the following information:

- a) Name of the material “Float Glass”;
- b) Indication of source of manufacture;
- c) Nominal thickness, in mm;
- d) Nominal length and width, in mm; and
- e) Number of panes per package.
- f) BIS Licence Number CM/Land
- g) BIS website details i.e. “For details of BIS certification please visit www.bis.gov.in”

3.3 Each piece of float glass shall be marked with the following details:

- a) The words “Float Glass”,
- b) Indication of source of manufacture, and
- c) Thickness of glass.

4. CONTROL UNIT —For the purpose of this scheme, total quantity of the material produced in a day from the same batch of raw material under similar conditions shall constitute a control unit.

5. LEVELS OF CONTROL –The tests as indicated in column 1 of Table 1 and the levels of control submitted by the manufacturer 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 Standard 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. A separate record providing the detailed information regarding the rejected control unit and mode of their disposal shall be maintained. Such material shall in no case be stored together with that conforming to the specification. The Standard Mark (if already applied) on rejected material should be defaced.

TABLE 1 LEVEL OF CONTROL
(Para 5 of the Scheme of Inspection and Testing)

(1)				(2)	(3)		
Test Details				Test equipment requirement R:required (or) S: Sub- contracting permitted	Levels of Control		
Clause	Requirements	Test Method			No. of Samples	Frequency	Remarks
		Clause	Reference				
4.1	Characteristic	Annex A	IS 14900 : 2018	R	One	Each control unit	
4.2	Visual Light Transmission	Annex B, Table 1	-do-	R	Three	Every 7 th control unit subject to condition in Note 2 below	
4.3	Dimensions and tolerances						
4.3.1	Thickness	4.3.1, Table 2	-do-	R	One	Every two hours	
4.3.2	Length & Width	4.3.2.1 & 4.3.2.2	-do-	R	-do-	-do-	
4.3.3	Squareness	Table 3	-do-	R	-do-	-do-	
4.4	Optical faults	Annex C, Table 8	-do-	R	-do-	-do-	
4.5	Visual Faults						
4.5.1	Spot Faults	Annex D, Table 4, 5 & 6	-do-	R	-do-	-do-	
4.5.2	Reams, Strings and Lines	Annex E	-do-	R	-do-	-do-	
4.5.3	Linear/Extended Faults	-do-	-do-	R	-do-	-do-	
4.6	Defects on cut side	4.6	-do-	R	-do-	-do-	
4.7	Optional Requirement						
4.7	Bloom	Annex F	-do-	R	One	Once in a week	To be carry out if required by

								purchaser
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Note-1: 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.

Note-2: In the beginning of the production run, each control unit shall be tested for Visual Light Transmission till 5 consecutive control units pass the test. Thereafter every 7th control unit will be taken up for testing. In case of any failure all control units subsequently manufactured shall be tested till 3 consecutive control units pass the test. After this the frequency of 7th control unit may be restored.