

केन्द्रीय मुहर विभाग-2

हमारा संदर्भ : के.मु.वि.-2/16: 2553 (Pt.1)

02 08 2019

विषय: IS 2553 (Part 1):2018 (Safety Glass Part-1 Architectural, Building And General Uses) का संशोधित Scheme of Inspection and Testing (SIT)

1. IS 2553 (Part 1):2018 (Safety Glass Part-1 Architectural, Building And General Uses) का संशोधित Scheme of Inspection and Testing (SIT) सक्षम प्राधिकारी द्वारा अनुमोदित किया गया है व अवलोकन हेतु संलग्न है।
2. सभी शाखा कार्यालयों से अनुरोध है की SIT, को अनुज्ञप्तिधारकों को दिन के भीतर भेजें। SIT का 30 दिनों के भीतर अनुपालन किया जाना चाहिए।

(आदित्य दास)
वैज्ञानिक सी -सी एम डी)2(

प्रमुख -.के.मु.वि)2(

सभी क्षेत्रीय शाखा कार्यालयों/ सी एच डी/एलपिपिडी को इंटरनेट के माध्यम से/परिचालित

प्रतिलिपि:

आई टी एस विभाग बीआईएस इंटरनेट पर अपलोड करने के लिए -

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16: 2553 (Pt.1)

02 08 2019

Subject: Revised Scheme of Inspection and Testing (SIT) for IS 2553 (Part 1):2018 (Safety Glass Part-1 Architectural, Building And General Uses)

1. Please find enclosed revised Scheme of Inspection and Testing (SIT) for IS 2553 (Part 1):2018 (Safety Glass Part-1 Architectural, Building And General Uses) duly approved by the Competent Authority.
2. BOs are advised to send this SIT to all Licensees within 7 days. The SIT shall be implemented within 30 days.

(Aditya Das)
Sc. 'C' (CMD-2)

Head (CMD-2)

Circulated to all ROs/BOs/CHD/LPPD

Copy to: ITS for hosting on BIS Intranet

**SCHEME OF INSPECTION AND TESTING
FOR CERTIFICATION OF SAFETY GLASS
PART-1 ARCHITECTURAL, BUILDING AND GENERAL USES
ACCORDING TO IS 2553 (Part 1):2018
(Fourth Revision)**

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. **PACKING AND MARKING** -The Standard Mark as given in Schedule of the license shall be marked on each piece of safety glass provided always that the safety glass thus marked conforms to all the requirement of the specification. The packing and marking shall be done as per the provisions of the Indian Standard. In addition, the licence no. CM/L-___ and details of BIS website shall be marked at an appropriate place as follows: "For details of BIS certification please visit www.bis.gov.in"
4. **CONTROL UNIT** – For the purpose of this scheme, all the safety glass of same nominal thickness and type and manufactured by the same method under similar conditions in a day shall constitute a control unit.
5. **LEVELS OF CONTROL** - The tests as indicated in Table 1 and the Levels of Control specified therein shall be carried out on the whole production of the factory covered by this scheme and appropriate record 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 the Certification Mark of the Bureau.
 - 5.1 All production which conforms to the Indian Standard and covered in the licence should be marked with Standard mark.
 - 5.2 Each control unit shall be individually tested to determine its conformity or otherwise according to Table 1.
 - 5.2.1 In the beginning of the production run each control unit shall be tested till 5 consecutive control units pass all the requirements of the Indian Standard. Thereafter every 7th control unit shall be taken up for testing. In case of any failure all control units subsequently manufactured shall be tested till three consecutive control units pass the test.
6. **REJECTION** - 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 shall be maintain in giving information relating to the rejection of the production not conforming to the requirement of the specification and the method of its disposal. Such material shall in no case be stored together with that conforming to the specification.

**SCHEME OF INSPECTION AND TESTING
OF SAFETY GLASS
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TABLE 1: LEVEL OF CONTROL

(1)					(2)	(3)		(4)
Test Details					Test equipment requirement R:required (or) S: Sub-contracting permitted	Levels of Control		Remarks
Sl.No.	Clause	Requirements	Test Method			No. of Samples	Frequency	
			Clause	Reference				
1.	5.1.1	General	5.1.1	IS 2553 (Part 1):2018	R	Each piece	-	Visual
2.	5.1.2	Distribution of Allowable Defects	4.4 and 4.5	IS 14900	R	Each piece	-	Visual. No testing required if glass is ISI marked as per IS 14900
	5.2	Requirements specific to Flat Toughened (Tempered) Safety Glass						
3.	5.2.1	Thickness	5.1	IS 17004	R	5 percent but not less than 5 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 5 percent and repeat the tests. None of these samples shall fail.
4.	5.2.2	Dimensions and Squareness	5.2.2	IS 2553 (Part 1):2018	R	5 percent but not less than 5 pieces	Each Control Unit	-DO-
5.	5.2.3	Fragmentation Test	6.1	IS 17004	R	2 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 2 samples from the lot and repeat the test. None of these 2

								samples shall fail.
6.	5.2.4	Flatness	5.2.4	IS 2553(Pt-1):2018	R	5 percent but not less than 5 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 5 percent and repeat the tests. None of these samples shall fail.
7.	5.2.5	Resistance to Impact	6.2.1, 6.4.5.2	IS 17004	R	2 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 2 samples from the lot and repeat the test. None of these 2 samples shall fail.
8.	5.2.6	Surface Compression (Optional)	6.5	IS 17004	S	As agreed between manufacturer and purchaser		
9.	5.2.7	Mechanical Strength - Four Point Bending Test (Optional)	6.3	IS 17004	S	As agreed between manufacturer and purchaser		
10.	5.2.8	Fabrication in Glass	5.2.8	IS 2553(Pt-1):2018	R	5 percent but not less than 5 pieces	Each Control Unit	
11.	5.2.9	Edge Working of Glass for toughening	5.2.9	-do-	R	-do-	-do-	
	5.3	Requirements Specific to Laminated Safety Glass			R			
12.	5.3.1	Thickness	4.2 & Table 1	IS 17004	R	5 percent but not less than 5 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 5 percent and repeat the tests. None of these samples shall fail.
14.	5.3.2	Dimensions, Squareness and Edge Displacement	5.3.2	IS 2553 (Pt-1):2018	R	5 percent but not less than 5 pieces	Each Control Unit	-DO- (applicable to cut sizes)
15.	5.3.3	Light stability test	7.6	IS 17004	R	Three pieces	Three months	All samples shall pass. In case of any single failure, draw another 3 samples from the lot and repeat

								the test. None of these 3 samples shall fail
16.	5.3.4	Boil and Bake Tests	7.1.1, 7.1.2	IS 17004	R	-do-	Each Control Unit	All samples shall pass. In case of any single failure, draw another 3 samples from the lot and repeat the test. None of these 3 samples shall fail.
17.	5.3.5	Fracture and adhesion test	6.2.2	-do-	R	Three pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 3 samples from the lot and repeat the test. None of these 3 samples shall fail.
18.	5.3.6	Defects in the Central Area	5.3.6.7	IS 2553 (Pt-1):2018	R	Three pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 3 samples from the lot and repeat the test. None of these 3 samples shall fail.
19.	5.3.7	Humidity Test (optional)	7.2	IS 17004	S	As agreed between manufacturer and purchaser		
20.	5.3.8	Resistance to Human Impact Test	6.4	IS 17004	R	2 pieces	Each Control Unit	All samples shall pass. In case of any single failure, draw another 2 samples from the lot and repeat the test. None of these 2 samples shall fail.
21.	5.3.9	Working on Glass after lamination	5.3.9	IS 2553 (Pt-1):2018	R	5 percent but not less than 5 pieces	Each Control Unit	

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. 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 to BO head.