



**PRODUCT MANUAL FOR
Industrial Safety Face Shields with Plastic Visor
ACCORDING TO IS 8521(Part I)-1977**

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 8521(Part I)-1977
	Title	:	Specification for Industrial Safety Face Shields Part-I with Plastics Visor
	No. of Amendments	:	01
2.	Sampling Guidelines:		
a)	Raw material	:	Materials used in the manufacture of faceshields shall combine mechanical strength and lightness of weight and shall be non-irritating to the skin. Metal parts shall be corrosion resistant. Plastics parts shall be of slow-burning type
b)	Grouping guidelines	:	Nil
c)	Sample Size	:	02 Nos.
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) Visual & Dimensional Examination (Clause 4.1) (ii) Impact Resistance (Clause 4.2.1) (iii) Penetration Resistance (Clause 4.2.2) (iv) Visible Transmittance (Clause 4.2.3) (v) Flammability (Clause 4.2.4) (vi) Disinfection (Clause 4.2.5)		
6.	Scope of the Licence :		
	"Licence is granted to use Standard Mark as per IS 8521(Part I)-1977 with the following scope:		
	Name of the product	:	Industrial Safety Face Shields with Plastic Visor

	Type	Type-1/Type-2/Type-3
	Class (for Type 3 only)	Class-1/Class-2
	Visor Sizes	Visor Size-A/Visor Size-B/ Special Visor Sizes
	Any other aspect required as per the Standard	Special Visors (Fibre Visor, Coloured Plastic)

ANNEX- A
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
01	Visual & Dimensional Examination (Clause 4.1)	Steel Scale/Vernier Caliper
02	Impact Resistance (Clause 4.2.1)	1.Holder with Support 2.Additional Supporting Block 25mm wide 3.Wooden Headform conforming to IS 7692:1993 4.Thermohygrometer 5.Steel Scale 6.Steel Ball of 22.5mm dia weighing Aprox 50gm
03	Penetration Resistance (Clause 4.2.2)	1.Holder with Support 2.Additional Supporting Block 25mm wide 3.Wooden Headform conforming to IS 7692:1993 4.Sewing Needle of Size 18 conforming to IS 2181:1973. 5.Needle Holder of Weight Approximate 50Gm. 6.Steel Scale
04	Visible Transmittance (Clause 4.2.3)	1.Luminance Transmittance Test Apparatus.
05	Flammability (Clause 4.2.4)	1.Bunsen Burner 2.Blue Flame Fuel Source 2.Angle Protector 3.Timer 4.Steel Scale
06	Disinfection (Clause 4.2.5)	For Method (a) 1.Timer 2.Formaldehyde Solution 3.Water 4.Thermometer For Method (b) 1.Timer 2. Formaldehyde Solution 3.Thermometer For Method (c) 1.Timer 2.Modified Phenolics 3.Hypochlorite or 4.Quaternary Ammonium Compound 5.Thermometer

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. PACKING AND MARKING – The Standard Mark as given in schedule of the licence shall be marked on each faceshield provided always that the product thus marked conform to all the requirements of the specification.

3.1 Packing and Marking shall be done as per the requirements of the standard. In addition the following information shall be marked on each package containing faceshields:

- i) BIS Licence No i.e. CM/L –
- ii) For details of BIS certification please visit www.bis.gov.in

4. CONTROL UNIT – All Industrial Safety Face Shields with Plastic Visor of same Type and/or Class manufactured in one 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				
4.1	Visual & Dimensional Examination	4.1	IS 8521 Part I	R	All	Each Control Unit	-
4.2.1	Impact Resistance	4.2.1	IS 8521 Part I	R	2	Each Control Unit	
4.2.2	Penetration Resistance	4.2.2	IS 8521 Part I	R	2	Each Control Unit	
4.2.3	Visible Transmittance	4.2.3	IS 8521 Part I	R	2	Each Control Unit	
4.2.4	Flammability	4.2.4	IS 8521 Part I	R	2	Each Control Unit	
4.2.5	Disinfection	4.2.5	IS 8521 Part I	R	2	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 by BO Head.