

## केन्द्रीय मुहर विभाग- III

हमारा संदर्भ- सीएमडी -III/16: IS 4151

11 जुलाई 2018

विषय- आई एस 4151 : 2015 के परिपालन लिए एस आई टी Doc: SIT/4151/1, July 2018

इसे उपरोक्त विषय का संदर्भ है।

सक्षम प्राधिकारी ने IS 4151 : 2015 के अनुसार उत्पाद के प्रमाणन हेतु एस.आई.टी. Doc: SIT/4151/1, July 2018 को अनुमोदित कर दिया है।

सभी संबंधित पक्षकारों से अनुरोध है कि इसका अनुपालन तत्काल प्रभाव से सुनिश्चित करें।

(एस डी राणे)  
वैज्ञानिक ई (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग — बीआईएस इंटरनेट पर डालने हेतू

## CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-III/16: IS 4151

11 July 2018

**Subject: SIT Doc: SIT/4151/1, July 2018 for certification of IS 4151 : 2015.**

This has reference to the subject mentioned above.

The Competent Authority has approved SIT Doc: SIT/4151/1, July 2018 for certification of the product as per IS 4151 : 2015.

All concerned are requested to ensure compliance of above SIT with immediate effect.

(S D Rane)  
Sc-E (CMD- III)

Head (CMD-III)

**Circulated to all RO/BO**

**Copy to: ITSD - for hosting on BIS Intranet.**

**SCHEME OF INSPECTION AND TESTING  
FOR PROTECTIVE HELMET FOR TWO WHEELER RIDERS  
ACCORDING TO IS 4151 : 2015**

**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 4151 : 2015. In addition, if visor is provided with the helmet, it shall be marked with manufacturer's name or trade mark and year of manufacture, identification in code or otherwise to enable tracing back date of manufacture to factory test records. Each visor shall also be tagged with a printed card having following information:

a) To maintain a good field of vision, formation of scratches and accumulation of dirt on the visor screen shall be avoided;

b) No organic solvents or materials containing organic solvents such as metal polish, wax and polish shall be used to clean the visor screen; and

c) A soft cloth shall be used to wipe the visor for removing dust, dirt etc.

**4. CONTROL UNIT** – Helmets of same shape and size manufactured under similar conditions 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				
4.1	Shell	4.1	IS 4151	–	–	Material shall conform to the requirements.	
4.2	Protective padding	4.2	IS 4151	–	–		
4.3	Comfort padding	4.3	IS 4151	–	–		
4.4	Retention system	4.4	IS 4151	–	–		
4.5	Metal Parts (Corrosion resistance)	4.5	IS 4151 IS 9844	S	Two samples for each component.	Each consignment	No further testing is required if accompanied with the test certificate. However, random sample counter check on each component shall be carried out once in three months.
4.6 and 6.1.2	Visor (If provided)	4.6	IS 4151 IS 9973	R	One sample for each shape and size	Each consignment received or one day production if manufactured inhouse	No further testing is required if accompanied with the test certificate or ISI marked. However, for non-ISI visors, random sample counter check shall be carried out once in a month.
5	Sizes	5.1	IS 4151	R	Eight	Each control unit	In case of any failure, all helmets in the control unit shall be tested.
6	CONSTRUCTIONAL REQUIREMENTS						
6.1	General	6.1.1 , 6.1.2 (Except visor), 6.1.3	IS 4151	R	Eight	Each control unit	In case of any failure, all helmets in the control unit shall be tested
6.2	Shell	6.2.1 to 6.2.7	IS 4151	R	Eight	Each control unit	

(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				
6.3	Protective padding	6.3	IS 4151	R	Eight	Each control unit	In case of any failure, all helmets in the control unit shall be tested
6.4	Retention system	6.4	IS 4151	R	Eight	Each control unit	–
6.5	Characteristics of material of helmet	6.5	IS 4151	R	Eight	Each control unit	–
6.6	Safety of wearer	6.6	IS 4151	R	Eight	Each control unit	–
6.7	Peripheral vision	6.7 and Annex B	IS 4151	R	One sample for each shape and size from every 7 control units.		# Please see foot note.
6.8	Workmanship and finish	6.8	IS 4151	R	Each	–	–
–	Mass	6.9	IS 4151	R	Eight	Each control unit	In case of any failure, all the helmets in the control unit shall be tested.
7.2	Impact absorption test	7.1, 7.2 and Annex C	IS 4151	S	Five samples for each shape and size	Once in three month	# Please see footnote.
7.3	Rigidity test	7.1, 7.3 and Annex D	IS 4151	R	Two samples for each shape and size from every 30 control units		# Please see footnote.
7.4	Test for projections and surface friction	7.4 and Annex E	IS 4151	R			# Please see footnote.
7.5	Dynamic test of retention system	7.5 and Annex F	IS 4151	R	One	Each control unit	# Please see footnote.

(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				
7.6	Audibility test	7.6 and Annex G	IS 4151	S	One sample for each shape and size	Once in 6 month	# Please see footnote.
7.7	Retention (Detaching) test of helmet	7.1, 7.7 and Annex H	IS 4151	R	One sample	Each control unit	–
7.8	Micro-slip test of the Chin strap	7.8 and Annex J	IS 4151	S	One sample for each shape and size	Once in three month	# Please see footnote.
7.9	Test for resistance to abrasion of the Chin strap	7.9 and Annex K	IS 4151	S	One sample for each shape and size	Once in three month	# Please see footnote.
7.10	Test for retention systems relying on quick release mechanisms	7.10	IS 4151	S	One sample for each shape and size	Once in three month	# Please see footnote.

# In case of failure of sample in any of the requirements as per clauses 6.7, 7.2, 7.3, 7.4, 7.6, 7.8, 7.9 and 7.10, samples from two consecutive control units shall be tested for the requirement in which failure has occurred. The original frequency shall be restored only after samples from both control units are found meeting the requirement.

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

Note-2: The control unit and levels of control as decided by the Bureau are obligatory, to which the licensee shall comply with.