

केन्द्रीय मुहर विभाग – III

हमारा संदर्भ- केन्द्रीय मुहर विभाग-III/16: IS 15658

17 जनवरी 2019

विषय: अनुपालन हेतु एस आई टी

सभी शाखा कार्यालय से आग्रह है कि एस आई टी का 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 अपलोड करने हेतु

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-III/16: IS 15683

17 January 2019

Subject: SIT for implementation of Revised IS 15683 : 2018 'Portable Fire Extinguishers – Performance and Construction

This has reference to the subject mentioned above.

BOs may kindly ensure implementation of the SIT with immediate effect.

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

Head (CMD - III)

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**SCHEME OF INSPECTION AND TESTING
FOR PORTABLE FIRE EXTINGUISHERS – PERFORMANCE AND
CONSTRUCTION ACCORDING TO IS 15683 : 2018**

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 requirements of IS 15683 : 2018

4. CONTROL UNIT – 100 Fire extinguishers or part thereof of same type/classification and capacity manufactured continuously or on consecutive days from same consignment of material under similar condition of manufacturing shall constitute a control unit.

4.1 Operating instructions and as per Clause 10.2.2 and manual as per Clause 11 of IS 15683 : 2018 shall be provided with each extinguisher.

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 Methods Clause	Reference		No. of Sample	Frequency	Remarks
5	Extinguishing media, Propellants and filling requirements						
5.1.2	Carbon dioxide	5.1.2	IS 15683 IS 15222	S	1	Each consignment	Further testing is not required if consignment received with test certificate. However one sample may be tested once in six month as verification sample
5.1.3	Clean agent	5.1.3	IS 15683	-	-	-	Manufacturers/suppliers test certificate shall be available.
5.1.4	Powders	5.1.4	IS 15683 IS 4308	S	1	Each consignment	Further testing is not required if consignment received with test certificate.
5.1.5	Foam concentrate	5.1.5	IS 15683 IS 4989	S	1	Each type in a consignment received	Further testing is not required if consignment received with test certificate.
5.2	Propellants	5.2	IS 15683	-	Each extinguisher	-	-
5.3.1	Fill density	5.3.1	IS 15683	R	1	Each control unit	-
5.3.2	Filling tolerance	5.3.2	IS 15683	R	1	Each control unit	-
5.3.3	Capacities	5.3.3	IS 15683	R	1	Each control unit	-
6.1	Test pressure	6.1	IS 15683	R	1	Each control unit	-

6.2	Minimum burst pressure	6.2	IS 15683	R	1	Each control unit	-
7.1	Operating temperature range	7.1	IS 15683	-	-	-	Shall be declared by the manufacturer
7.2	Minimum effective discharge time and Bulk range of discharge	7.2.1 7.2.2 7.2.3	IS 15683	R	1	Each control unit	-
7.3	Resistance to temperature changes	7.3.1 7.3.2	IS 15683	S	2	Once in three month	-
7.4	Retention of charge						
7.4.1	Retention of charge following partial discharge (Discharge valve test)	7.4.1.1 7.4.1.3	IS 15683	R	1	Each control unit	-
7.4.2	Leakage test	7.4.2	IS 15683	R	1	Once in three month	-
7.5	Mechanical resistance						
7.5.1	Impact resistance test	7.5.1	IS 15683	S	1	Once in three month	-
7.5.2	Vibration resistance test	7.5.2	IS 15683	S	1	Once in three month	-
7.6	Resistance to corrosion						
7.6.1	External corrosion test for all types of extinguishers	7.6.1	IS 15683	S	1	Once in three months	All types of extinguishing media shall be covered over a period of one year.
7.6.2	Internal corrosion test for extinguishers using water based medium and clean agent	7.6.2	IS 15683	S	1	Once in three months	
7.7	Tapping test (Powder extinguishers only)	7.7.1 7.7.2 7.7.3	IS 15683	S	1	Once in three months	All sizes and types shall be covered over a period of two years.
7.8	Intermittent discharge test	7.8.1 7.8.2	IS 15683	S	1	Once in three months	

8	Performance requirements for test fires	8.1 to 8.7	IS 15683	S	1	Once in a year	All sizes, type and extinguishing media shall be covered in a year. For each class the manufacturer shall declare the fire rating. Testing may be done preferably in presence of BIS officer.
8.8	Electrical conductivity of extinguisher discharge	8.8	IS 15683	S	1	Once in six month	-
9	Construction requirements						
9.1	High pressure extinguishers	9.1	IS 15683	-	Each extinguisher	-	-
9.2	Low pressure extinguishers	9.2.1.1 to 9.2.1.7	IS 15683	-	Each extinguisher	-	-
9.2.1.8	Determination of maximum service pressure	9.2.1.8	IS 15683	S	One sample from each type and size	Once in three month	-
9.2.2	Burst test	9.2.2	IS 1568.3	R	1	Each control unit	-
9.2.3	Crushing test	9.2.3	IS 15683	S	One sample from each type and size	Once in three month	-
9.2.4	Pressure cycling test	9.2.4	IS 15683	S	One sample from each type and size	Once in three month	-
9.2.5	Welded low carbon steel cylinder	9.2.5	IS 15683	S	1	Each consignment received	-
9.2.6	Stainless steel cylinder	9.2.6	IS 15683	S	1	Each consignment received	-

9.2.7	Aluminium cylinder	9.2.7	IS 15683	S	1	Each consignment received	-
9.2.8	Composite cylinder	9.2.8	IS 15683	S	1	Each consignment received	-
9.3	Carrying handle	9.3.1 to 9.3.3	IS 15683	R	Each extinguisher	-	-
9.4	Mounting						
9.4.1	Wall mounting	9.4.1	IS 15683	-	Each extinguisher	-	-
9.4.2	Mounting hook strength	9.4.2	IS 15683	R	2	Each control unit	-
9.4.3 to 9.4.6	Mounting bracket strength	9.4.3 to 9.4.6	IS 15683	R	2	Each control unit	-
9.5	Caps, valves and closures	9.5.1 to 9.5.4 & 9.5.6	IS 15683	-	Each component	-	-
9.5.5	Burst test of caps, valve and closures	9.5.5	IS 15683	R	2	Each lot of same size.	
9.6	Safety device	9.6.1 9.6.2	IS 15683	-	Each extinguisher	-	-
9.7	Requirement for plastic components						
9.7.1	Air-oven ageing	9.7.1	IS 15683	S	2	Once in six month	-
9.7.2	Impact resistance	9.7.2	IS 15683	S	4	Once in three month	-
9.7.3	Test for exposure to extinguisher medium	9.7.3	IS 15683	S	1	Once in a year	Additional sample shall be tested whenever there is change insource of supply or mix design

9.8	Hose assemblies	9.8.1 to 9.8.2	IS 15683	R	2	Each consignment	Further testing is not required, if accompanied with test certificate or ISI marked.
9.9	Method of operation	9.9.1 to 9.9.2	IS 15683	R	1	Each control unit	-
9.10	Safety – locking device	9.10.1 to 9.10.6	IS 15683	R	2	Each control unit	-
9.11	Requirements for pressure gauges and indicators for low pressure extinguishers						
9.11.1	General	9.11.1	IS 15683	-	Each component	-	-
9.11.2	Calibration test– Gauges and Indicators	9.11.2	IS 15683	S	Each pressure gauge	-	-
9.11.3	Burst strength test – Gauges and Indicators	9.11.3	IS 15683	R	1	Each 100 or part thereof from same source for each size	
9.11.4	Water resistance test– Gauges and Indicators	9.11.3	IS 15683	R	1	Each 100 or part thereof from same source for each size	
9.12	Dip tubes and filters – Water based Extinguishers	9.12.1 to 9.12.2	IS 15683	-	Each extinguisher	-	-
9.13	Horn test for carbon dioxide extinguisher	9.13	IS 15683	R	1	Once in three month	-
9.14	Requirements for extinguishants filled in the extinguisher	9.14.1 to 9.14.3	IS 15683	S	1	Each consignment received	No further testing is required if accompanied with test certificate or ISI marked.
10.1	Colour	10.1	IS 15683	-	Each extinguisher	-	-

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 of BO Head.