



**PRODUCT MANUAL FOR
DRY POWDER FIRE EXTINGUISHER FOR METAL FIRES
ACCORDING TO IS 11833 : 1986**

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 11833 : 1986
	Title	:	DRY POWDER FIRE EXTINGUISHER FOR METAL FIRES
	No. of Amendments	:	4
2.	Sampling Guidelines:		
a)	Raw material	:	As per clause 4 and Table 1 of IS 11833 : 1986
b)	Grouping guidelines	:	Fire extinguisher of each capacity shall be tested to cover that capacity in the scope of the licence.
c)	Sample Size	:	Fire Extinguisher – 1 No + Charge – 2 packets + CO2 charged cylinder – 2 Nos.
3.	List of Test Equipment	:	Please refer ANNEX – A
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	Possible tests in a day :		
	(i) Shape and Dimensions (Clause 5)		
	(ii) Construction (Clause 6)		
	(iii) Applicator (Clause 8)		
	(iv) Painting (Clause 11)		
	(v) Performance test (Clause 12)		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 11833 : 1986 with the following scope:		
	Name of the product	DRY POWDER FIRE EXTINGUISHER FOR METAL FIRES	
	Capacity	-- kg	

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
1	Capacity (Clause 2)	- Weighing balance
2	Shape and Dimensions (Clause 5)	- Outer Caliper - Vernier Caliper - Micrometer - Steel Scale - Ring thread gauge
3	Applicator (Clause 8)	- Steel scale/tape
4	Anticorrosive Treatment (Clause 9)	- Coat meter or similar test equipment
5	Test Requirements (Clause 12)	- Air conditioner to maintain temperature 27 ± 2 °C - Weighing balance - Stop watch - Hydrostatic pressure testing arrangement with pressure gauge and timer - Burst testing arrangement with pressure gauge

The above list is indicative only and may not be treated as exhaustive.

ANNEX B

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. LABELLING AND MARKING – As per the requirement of IS 11833 : 1986

4. CONTROL UNIT – A batch of 50 pieces or part thereof of dry powder fire extinguishers of the same capacity produced from same material under similar conditions of manufacturing 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				
2	Capacity	2	IS 11833	R	Each fire extinguisher	-	-
4	Material	4.1, Table 1	IS 11833	S	One	Each consignment	#
5	Shape and Dimensions	5.1 to 5.6	IS 11833	R	Each fire extinguisher	-	-
6.	Construction	6.1 to 6.6	IS 11833	R	Each fire extinguisher	-	-
6.7	Braided rubber/ Plastic hose	6.7	IS 11833	S	One	Each consignment	#
7	Expansion space	7.1	IS 11833	R	One	Each control unit	-
8	Applicator	8.1	IS 11833	R	One	Each control unit	-
9	Anti-Corrosive Treatment	9.1	IS 11833	R	One	Each control unit	-
10.	Dry Powder charge	10.1	IS 11833 IS 4861	S	One	Each consignment	#
11	Painting	11.1	IS 11833	R	Each fire extinguisher	-	-

12	Performance test	12.1	IS 11833	R	One	Each control unit	-
	Internal pressure test	12.2	IS 11833	R	One	Each fire extinguisher	-
	Hydraulic burst test	12.2	IS 11833	R	One	Lot of 400 extinguishers or part thereof manufactured from same cast of body raw material	
13, 13.2	Additional requirements for Eco marking – Specific requirements						
13.2.1	Ozone depleting substances	13.2.1	IS 11833	S	One	Initially at the time of GOL and subsequently every three years or whenever there is change in formulation/composition of material.	
13.2.2	Atmospheric life-time	13.2.2	IS 11833				
13.2.3	Global warming potential	13.2.3	IS 11833				
13.2.4	Freedom of metal parts from lead and lead alloy	13.2.4	IS 11833	S	One	Each Consignment	#
13.2.5	Coating	13.2.5	IS 11833	S	One	Each Consignment	

No further testing is required if accompanied with test certificate or ISI Marked.

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 by BO Head.