



उत्पाद मैनुअल
PACKAGING OF ELECTRIC DETONATOR PART 2 CORRUGATED FIBREBOARD CASES
IS 15073 (Part 2):2008 के अनुसार

PRODUCT MANUAL
FOR PACKAGING OF ELECTRIC DETONATOR PART 2 CORRUGATED FIBREBOARD CASES
ACCORDING TO IS 15073 (Part 2):2008

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- I के तहत प्रमाणन के संचालन में अभ्यास और पारदर्शिता के संचालन में पारदर्शिता सुनिश्चित करने के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन लाइसेंस/प्रमाणपत्र प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

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.	उत्पाद Product	:	IS 15073 (Part 2):2008
	शीर्षक Title	:	Packaging Of Electric Detonator Part 2 Corrugated Fibreboard Cases
	संशोधनों की संख्या No.of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	The packages shall be manufactured from suitable kraft liner or paper board or any combination thereof (conformity may be established through supplier's certificate or manufacturer's declaration)
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	NA - Samples of packages of each size and shape (style) approved by the Chief Controller of Explosives shall be tested
c)	नमूने का आकार Sample Size	:	05 Nos.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer Annex-A

4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer Annex-B
5.	एक दिन में संभावित परीक्षण Possible tests in aday		
	Substance, Combined Internal Dimensions, Bursting Strength, Water Absorption for 30 mins		
6.	लाइसेंस का दायरा / Scope of the Licence:		
	"Licence is granted to use Standard Mark as per IS 15073 (Part 2):2008 with the following scope:		
	Name of the product		Corrugated Fibreboard Cases for Packaging Of Electric Detonator
	Shape and Size (Styles)		Dimensioned Drawing of packages of each size and shape (style) approved by the Chief Controller of Explosives and tested and found conforming to standard, shall be endorsed in the scope of licence

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN,9, BAHADUR SHAH ZAFAR MARG,
NEW DELHI-110002

ANNEX – A

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

Sr. No.	Test Equipment	Tests used in with Clause Reference	Least Count and Range/Specifications
01	Bursting Strength Tester	Bursting Strength, Cl 4.2, Table 1	0.5KG/CM2 & 0-35KG/CM2
02	Cobb Tester	Water absorption for 30 min (Cobb Test), Cl 4.2, Table 1	ACCURACY .1+/-
03	Weighing Balance	Substance, Cl 4.2, Table 1	0.01 gm & 500 gms
04	Steel Scale	Dimensions, Cl 4.2, Table 1	0.5/1 mm and 1 meter
05	Digital Thermo Hygrometer	Temperature, Cl 4.2, Table 1	0.1 C/ 1% R.H & -50 to 70 C/10 to 99% R.H
08	Impact apparatus and impact surface	Inclined impact test, Cl 4.4, Table 2	as per IS 7028 (Part 3)
09	Lifting arrangement, means of holding package, release mechanism, impact surface	Drop Test, Cl 4.4, Table 2	as per IS 7028 (Part 4)
10	Horizontal surface, means of loading and measuring deflection	Stacking Test, Cl 4.4, Table 2	as per IS 7028 (Part 1)
11	Conditioning chamber	Conditioning of samples , Cl 4.4, Table 2	As per IS 7031

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

ANNEX B

SCHEME OF INSPECTION AND TESTING

1. **LABORATORY-** A laboratory shall be maintained, which shall be suitably equipped (as given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the method given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipment.

2. **TEST RECORD-** The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. **PACKING AND MARKING** - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on fibreboard cases provided always that the material so marked conforms to each requirement of the specification.

3.1 The Legend "FOR PACKAGE ONLY" shall be prominently marked near the Standard Mark in a linear manner.

3.2 The fibreboard cases shall also be marked with the following under the heading "BIS CERTIFICATION DETAILS FOR PACKAGE":

- a) Manufacturer's Name or Trade Mark (fibreboard cases)
- b) The batch or control unit number and date of manufacture (fibreboard cases), and
- c) BIS licence number and "For more BIS certification details please visit www.bis.gov.in"

3.3. The package shall be marked to indicate the following:

- i) Statutory marking – Marking as required and approved by the statutory authority
- ii) Label Size – As per CI 5.1 (b) and Annex A of IS 15073 (Part 2):2008

3.4 The fibreboard cases shall be packed and supplied as agreed between purchaser and manufacturer.

4. **CONTROL UNIT-** For the purpose of this scheme, the entire quantity of fibreboard cases of the same shape and size (style) manufactured from the same type of raw materials at a time in one day (24 hrs) shall be taken as one control unit.

5. **LEVELS OF CONTROL** :- The tests as indicate in Table 1 and at the levels of controls in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark.

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.

TABLE1
LEVELS OF CONTROL

(1)				(2)	(3)		
TEST DETAILS				Test equipment R: required (or) S: Sub- contracting permitted	LEVELS OF CONTROL		Remark s
Clause	Requirement	Test Method			No. of Sampl es	Lot Size	
4.2 Table 1	Shape and Size	6.3.1	IS 6481	R	5 boxes	Every Hour	In case of failure of any place, all production during the preceding hour shall be 100% inspected and defective pieces rejected or rectified. All subsequent pieces from the production after the one failed may be tested until 10 consecutive samples pass, after which hourly testing may be resumed.
-do-	Substance	6.3.1 Table 1	IS 15073(Pt.2)	R	-do-	do-	
-do-	Combined Internal Dimension, Height	6.3.1 Table 1	IS 15073(Pt.2)	R	-do-	do-	
-do-	Bursting Strength	12.5 of IS 1060(Pt.1)		R	3 boxes	One day production of boards made out of same consignment	If any one piece of corrugated fiberboard box fails in these tests, six more pieces shall be tested and none of them should fail.
-do-	Water Absorption (Cobb Test)	6 of IS 4006(Pt.1) and 13.2.2 of IS 1060(Pt.1)		R	-do-		

						and type of kraft paper	
4.4 Table 2	Drop Test		IS 7028 (Pt.4)	S	-do-	Once in six months	
-do-	Inclined Impact Test		IS 7028 (Pt.3)	S	-do-	-do-	
-do-	Stacking Test		IS 7028 (Pt.1)	S	-do-	-do-	

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 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.