



PRODUCT MANUAL
FOR General Requirements of Packages for Explosives
Part 1 Commercial High Explosives
ACCORDING TO IS 10212 Part 1: 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 10212 Part 1: 1986
	Title	:	General Requirements of Packages for Explosives Part 1 Commercial High Explosives
	No. of Amendments	:	NIL
2.	Sampling Guidelines:		
a)	Raw material	:	No specific requirement
b)	Grouping guidelines	:	NA (No varieties are specified in the IS)
c)	Sample Size	:	Please refer Annex – A
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 :		1. Workmanship, 2.Dimensions ,3 .Bursting Strength, 4.Water Absorption
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS10212 Part 1: 1986with the following scope:		
	Name of the product		General Requirements of Packages for Explosives Part 1 Commercial High Explosives
	Sizes		As per requirement of purchaser

ANNEX-A
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SAMPLE SIZE

Sl. No.	Requirement/Test	Cl. Ref.	Sample size (number of packages)
1	Workmanship	3.2 Appendix A	One
2	Dimensions	-do-	One
3	Bursting Strength	5.4	Three
4	Water absorption test	5.4	Three
5	Drop test	Table 1	One
6	Inclined impact	-do-	One
7	Stacking test	-do-	Two
8	Water spray test	-do-	one

Total: 12 CF Boxes minimum

ANNEX-B
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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
1	Steel Tape	Dimensions, Cl No. 3.2, A-1
2	Bursting Strength Apparatus	Bursting Strength, Cl 3.2, A-1
3	Weighing Balance	Water Absorption, Cl 3.2, A-1
4	Drop Test Arrangement as per IS7028(Part 4)	Drop Test, Cl No. 3.4 & Tab1
5	Inclined Impact Test Arrangement as per IS7028(Part 3)	Inclined Impact Test Cl No. 3.4 & Tab1
6	Stacking Test Arrangement as per IS7028(Part 1)	Stacking Test Cl No. 3.4 & Tab1
7	Water spray Test Arrangement as per IS7028(Part 8)	Water spray Test Cl No. 3.4 & Tab1

The list above is indicative and may not be taken as exhaustive

ANNEX – C

SCHEME OF INSPECTION AND TESTING
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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 equipment.
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 the Schedule of the license shall be rubber stamped or printed on the inside of each corrugated fiber board box, provided always that the product thus marked and packed conforms to all the requirement of the specification.
 - 3.1 Marking and packing shall be done as per the provisions of the Indian Standard. In addition In addition, the following details shall be mentioned on each container/package:
 - a) BIS Licence No. CM/L _____.
 - b) BIS website details i.e.–“For details of BIS certification please visit www.bis.gov.in”
4. **CONTROL UNIT** – For the purpose of this scheme, the entire quantity of corrugated fiber board boxes produced in a day from the same consignment of raw materials, 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 Standard 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 LEVELS OF CONTROL
(Scheme of Inspection and Testing)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required(or) S:Sub contracting permitted	Recommended Levels of Control		
Cl.	Requirement	Test Methods	Clause Reference		No. of Sample	Frequency	Remark
3.2	Workmanship	3.2	IS 10212 Pt 1: 1986	R	Two	Each hour	See Note 3
5.4	Dimensions	Appendix A	-do-	R	Two	Each hour	See Note 3
5.4	Bursting strength	12.5	IS 1060 (Pt.1)	R	Three	Each control unit	See Note 4
5.4	Water absorption test	6	IS 4006 (Pt.1)	R	-do-	-do-	-do-
3.4 i	Drop Test		IS 7028 (Pt. 4)	R	-do-	-do-	-do-
3.4 ii	Inclined impact test		IS 7028 (Pt. 3)	R	-do-	-do-	-do-
3.4 iii	Stacking test		IS 7028 (Pt. 1)	R	-do-	-do-	-do-
3.4 iv	Water spray test		IS 7028 (Pt. 8)	R	-do-	-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 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 to BO head.

Note-3: 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.

Note-4: If any one piece of corrugated fibre board fails in these tests, six more pieces shall be tested and none of them should fail. If even one piece fails, the entire control unit shall not be marked.