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उत्पाद मैनुअल

नम्य मध्यवर्मी बड़े आधान - विशिष्टि

14738: 2017 के अनुसार

PRODUCT MANUAL
FOR Flexible Intermediate Bulk
Containers (FIBCs) — Specification
ACCORDING TO IS 14738: 2017

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता 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 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 uniformity 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.

1.	मानक संख्या IS No.	:	IS 14738 : 2017
	शीर्षक Title	:	Flexible Intermediate Bulk Containers (FIBCs) — Specification
	संशोधनों की संख्या No. of amendments	:	NIL
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Raw material shall be conforming to the requirements specified in clause 4.1 of IS 14738: 2017. Note: This section indicates the requirements for raw material(if specified in the IS)for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to Annex-A

c)	नमूने का परिमाण Sample Quantity	:	10 Pieces Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	i. Type of FIBC ii. Type of Lifting Devices iii. Nature of lifting device iv. Safe working load v. Actual content to be carried vi. Optional Requirements Note: Apart from the above, any other requirements/parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to Annex-B
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to Annex-C
5.	एक दिन में संभावित परीक्षण Possible tests in a day		i. Cyclic Top Lift Test ii. Compression/Stacking test Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies(OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.
6.	लाइसेंस का दायरा/Scope of the Licence:		
			"Licence is granted to use Standard Mark as per IS 14738: 2017 with the following scope:
	Name of the product		Flexible Intermediate Bulk Containers
	Type of FIBC		Heavy duty re-usable FIBC/ Standard duty re-usable FIBC/Single trip FIBC
	Type of Lifting Devices		Rope Lifting Devices/ One Point Lifting Device/Two Point Lifting Devices/ Two Lifting Devices/ Four Pointed Lifting Devices
	Nature of lifting device		Integral/Fixed/Detachable
	Optional requirements		Coated/Uncoated Laminated/Unlaminated With Special Treatments: UV resistance/Electrostatic Conductivity/Flame Retardant properties, Insect Repellant treatment, etc. With/Without Inner Liner

ANNEX-A

GROUPING GUIDELINES

- 1) Based on Strength, FIBCs are categorized into 3 Types:
 - i) Heavy duty re-usable FIBC
 - ii) Standard duty re-usable FIBC
 - iii) Single trip FIBC
- 2) Further, based on nature of lifting device, there are 3 categories defined in the Standard:
 - i) Integral lifting device
 - ii) Fixed lifting device
 - iii) Detachable lifting device
- 3) In addition to the above, FIBCs can have 5 type of lifting devices:
 - i) Rope Lifting Devices
 - ii) One Point Lifting Device
 - iii) Two Point Lifting Devices
 - iv) Two Lifting Devices
 - v) Four Pointed Lifting Devices
- 4) FIBCs may also have the following optional properties:
 - i) Coated/Uncoated
 - ii) Laminated/Unlaminated
 - iii) With Special Treatments: UV resistance/Electrostatic Conductivity/Flame Retardant properties, Insect Repellant treatment, etc.
 - iv) With/Without Inner Liner
- 5) Based on the above, following grouping guidelines have been prepared for GOL/CSoL:
 - i. Sample of each type of FIBC (Heavy duty re-usable FIBC, Standard duty re-usable FIBC & Single trip FIBC) to be drawn and tested to be included in the scope of licence.
 - ii. Sample of FIBCs with each nature (Integral lifting device/Fixed lifting device/Detachable lifting device) & type (Rope Lifting Devices/One Point Lifting Device/Two Point Lifting Devices/Two Lifting Devices/Four Pointed Lifting Devices) of lifting devices shall be drawn and tested to be included in the scope of licence.
 - iii. If Sample of Coated FIBCs is drawn and tested, Uncoated FIBCs may also be incorporated in the scope of licence.
 - iv. If Sample of Laminated FIBCs is drawn and tested, Unlaminated FIBCs may also be incorporated in the scope of licence.
 - v. Sample of FIBCs with Special Treatments: UV resistance/Electrostatic Conductivity/Flame Retardant properties, Insect Repellant treatment, etc. shall be drawn and tested separately to be incorporated in the scope of licence.
 - vi. If Sample of FIBCs with Inner Liner is drawn and tested, FIBCs without Inner Liner may also be incorporated in the scope of licence.

- vii. Scope of licence shall be restricted based on the manufacturing and testing facilities available.
- viii. During operation of licence, samples of each variety covered in the scope of licence, shall be tested in rotation, to the extent possible.

ANNEX-B

LIST OF TEST EQUIPMENTS

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Construction, Clause 4.2	Measuring Scale
2	Design, Clause 4.3	Measuring Tape
3	Cyclic Top Lift Test, Clause 6.1	Flat Pressure Plate as per clause 9.4 of IS 14738: 2017 Hoisting Devices FIBC Lifting Devices Filler Material Suspension Frame as per clause 9.2 of IS 14738: 2017 with arrangement to apply force at a rate of 70 ± 20 kN/min Conditioning Chamber Stop watch
4	Compression/Stacking Test, Clause 6.2	Load Stop watch
5	UV Resistance Test, Clause 10	UV chamber with Fluorescent UV lamp type B & Temperature Controlled Conditioning Chamber Tensile Testing Machine

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN:

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: the entire quantity of FIBCs of particular design & variety manufactured using same raw material and under similar conditions of manufacturing in a day.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

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

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: The material shall also be marked with the following additional requirement on each FIBC:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or)S:Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
4.1	Materials	4.1	IS 14738	S	One	Each Control unit	
4.2	Construction	4.2	IS 14738	R	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity.		
4.3	Design	4.3	IS 14738	R			
6.1	Cyclic Top Lift Test	9	IS 14738	R	One	Each Control Unit	
6.2	Compression/Stacking Test	6.2	IS 14738	R	One	Each Control Unit	
10	UV Resistance Test	10	IS 14738	S	One	Once in 3 months	