PRODUCT MANUAL FOR POLYETHYLENE FLOATS (SPHERICAL) FOR FLOAT VALVES ACCORDING TO IS 9762: 1994

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 9762: 1994
	Title	:	Polyethylene floats (Spherical) for float valves
	No. of Amendments	:	NIL
2.	**Sampling Guidelines:**		
a)	**Raw material**	:	HDPE – as per Clause 4 of IS 9762: 1994
b)	**Grouping guidelines**	:	Please refer ANNEX – A
c)	**Sample Size**	:	1 float
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**	**:**	Please refer ANNEX – D
6.	**Scope of the Licence:**		
	"Licence is granted to use Standard Mark as per IS 9762: 1994 with the following scope:		
	Name of the product	Polyethylene Floats (Spherical) for Float Valves.	
	Nominal sizes (mm)		
	Type of pressure application	High Pressure Application (HP)/ Low Pressure Application (LP)	

ANNEX A

Grouping Guidelines

1. Polyethylene floats (Spherical) for float valves as per IS 9762: 1994 are classified as given below:

a) Nominal sizes: 15, 20, 25, 32, 40 and 50 mm

b) High pressure application (HP)/ Low pressure application (LP)

2. Considering the above, following grouping guidelines is developed for GoL/CSoL:

- Two samples of floats, one with minimum nominal size and other with maximum nominal size, for each pressure application (HP & LP) shall be tested for all requirements to cover floats of all sizes within that size range for the particular type of pressure application.

3. The Firm shall declare the varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX B

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.	Dimensions and Tolerances (Clause 6)	- Vernier Calliper - Micrometre - Go/no-Go plug and thread gauges - Depth gauge
2	Leakage and Water Absorption Test (Clause 8.1)	- Heating Vessel - Hot plate or burner for heating water - Dead weight - Weighing Balance - Thermometer - Steel scale
3	Deflection Test (Clause 8.2)	- Water tank - Hot plate/burner for heating water - Testing arrangement for Deflection Test as per clause B-1.1 and Fig 1 of IS 9762 : 1994 - Load Gauge - Dial Indicator Gauge - Stop Watch - Thermometer
4	Impact Test (Clause 8.3)	- Steel scale - Concrete floor
5	Boss Test (Clause 8.4)	- Apparatus or test set up for testing resistance of the Boss to distortion as per Clause C-1.1. and Fig 2 and 3 of IS 9762 : 1994 - Mass of 10 kg

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

ANNEX C

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 9762: 1994.

4. CONTROL UNIT – All floats of same designation i.e nominal size and pressure application manufactured under similar conditions of manufacturing in one shift 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. However, the disposal method should be as much eco-friendly as possible.

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				
4	Material	4	IS 9672 IS 7328	S	One	Each Consignment	Further testing is not required if received with test certificate or ISI marked.
6	**Dimensions**						
6.1	Diameter of float	6.1, Table 1	IS 9762	R	One	One-hour production from each machine	-
6.2	Wall Thickness	6.2.1, Table 1	IS 9762	R	One	One-hour production from each machine	-
	Wall thickness of boss – Thickness of metal inserted	6.2.2, 7.1, 7.3, Table 1	IS 9762	R	Thirteen	Each control unit	Thirteen samples of each size from each consignment during each shift shall be checked for its conformity before releasing the material for actual production.
7	Manufacture and Workmanship	7.1	IS 9762	R	All floats	-	-
8.1	Leakage and Water Absorption Tests	8.1, Annex-A	IS 9762	R	One	Each Control Unit	-
8.2	Deflection Test	8.2, Annex-B	IS 9762	R	One	Each Control Unit	-
8.3	Impact Test	8.3	IS 9762	R	One	Each Control Unit	-
8.4	Boss Test	8.4, Annex-C	IS 9762	R	One	Each Control Unit	-

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.

ANNEX D

Possible Tests in a Day

1. Dimensions (Clause 6)
2. Workmanship and Finish (Clause 7)
3. Operational and Performance Requirements (Clause 8)
   a) Leakage Test (Clause 8.1)
   b) Deflection Test (Clause 8.2)
   c) Impact Test (Clause 8.3)
   d) Boss Test (Clause 8.4)