



## उत्पाद मानुयल

ब्लो मोल्डकृत पोलिओलिफ़िन धारक भाग 3 - आवरित उठाव  
धारक 60 लीटर से ऊपर, 250 लीटर (सम्मिलित) की क्षमता तक

IS 7408 (Part 3) : 2000 के अनुसार

**PRODUCT MANUAL  
FOR BLOW MOULDED POLYOLEFIN CONTAINERS  
PART 3 - CLOSED HEAD CONTAINERS OVER 60 LITRES UP TO AND  
INCLUDING 250 LITRES  
ACCORDING TO IS 7408 Part 3 : 2000**

भारतीय मानक ब्यूरो - विनियम की स्कीम (अनुरूपता मूल्यांकन) I के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय शाखा कार्यालयों एवं / लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स प्रमाण पत्र / सकता है। प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा

*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<br><b>Product</b>                             | : | IS 7408 Part 3 : 2000                                                                                                                           |
|    | शीर्षक<br><b>Title</b>                               | : | Blow Moulded Polyolefin Containers – Specification Part 3 -<br>Closed Head Containers Over 60 Litres up to and Including 250<br>Litres capacity |
|    | संशोधन संख्या<br><b>No. of Amendments</b>            | : | 02                                                                                                                                              |
| 2. | नमूनाकरण दिशा निर्देश<br><b>Sampling Guidelines:</b> |   |                                                                                                                                                 |
| a) | कच्चा माल<br><b>Raw material</b>                     | : | Raw material requirements shall be as per clause 4 of IS 7408<br>Part 3.                                                                        |
| b) | समूहिकरण दिशा निर्देश<br><b>Grouping guidelines</b>  | : | कृपया Annex - A देखें                                                                                                                           |

|    |                                                                                                                                                                                                                                 |   |                                                                                                                                                                                                                                          |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                                                                                                                                 |   | Please refer ANNEX – A                                                                                                                                                                                                                   |
| c) | नमूने का परिमाण<br><b>Sample Size</b>                                                                                                                                                                                           | : | 10 Containers                                                                                                                                                                                                                            |
| 3. | परीक्षण उपकरणों की सूची<br>निरीक्षण व परीक्षण स्कीम<br><b>List of Test Equipment</b>                                                                                                                                            | : | कृपया Annex - B देखें<br>Please refer ANNEX – B                                                                                                                                                                                          |
| 4. | निरीक्षण व परीक्षण स्कीम<br><b>Scheme of Inspection and Testing</b>                                                                                                                                                             | : | कृपया Annex-C देखें<br>Please refer ANNEX – C                                                                                                                                                                                            |
| 5. | एक दिन में संभावित परीक्षण<br><b>Possible tests in a day:</b>                                                                                                                                                                   |   |                                                                                                                                                                                                                                          |
|    | a. Dimension – Cl 6.1 to 6.10<br>b. Drop Impact Strength - Cl 7.3<br>c. Ink Adhesion of Printed Containers – Cl 7.5<br>d. Product Resistance of Printed Containers – Cl 7.6                                                     |   |                                                                                                                                                                                                                                          |
| 6. | लाइसेन्स का कार्यक्षेत्र / <b>Scope of the Licence:</b>                                                                                                                                                                         |   |                                                                                                                                                                                                                                          |
|    | IS 7408 (Part 3) : 2000 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है<br>“Licence is granted to use Standard Mark as per IS 7408 Part 3 : 2000 with the following scope: |   |                                                                                                                                                                                                                                          |
|    | उत्पाद का नाम<br><b>Name of the product</b>                                                                                                                                                                                     |   | ब्लो मोल्डकृत पोलिओलिफिन धारक भाग 3 - आवरित उठाव धारक 60 लीटर से ऊपर, 250 लीटर (सम्मिलित ) की क्षमता तक<br><br>Blow Moulded Polyolefin Containers Part 3 - Closed Head Containers Over 60 Litres up to and Including 250 Litres capacity |
|    | <b>Nominal Capacity</b>                                                                                                                                                                                                         |   | --- in Litres                                                                                                                                                                                                                            |
|    | <b>Handle</b>                                                                                                                                                                                                                   |   | With Handle or without Handle                                                                                                                                                                                                            |
|    | <b>Optional Requirement</b>                                                                                                                                                                                                     |   | With or Without Product Compatibility                                                                                                                                                                                                    |

**ANNEX A**  
**TO PRODUCT MANUAL FOR BLOW MOULDED POLYOLEFIN CONTAINERS**  
**PART 3 - CLOSED HEAD CONTAINERS OVER 60 LITRES UP TO AND INCLUDING**  
**250 LITRES ACCORDING TO IS 7408 Part 3: 2000**

**GROUPING GUIDELINES**

1. Blow Moulded Polyolefin Containers Part 3 Closed Head Containers Over 60 Litres up to and Including 250 Litres as per IS 7408 Part 3 : 2000 are classified based on Nominal Capacity (litres) as given below:

| <b>Group</b> | <b>Nominal Capacity</b> |
|--------------|-------------------------|
| Group 1      | 60 to 150 litres        |
| Group 2      | Over 150 to 250 litres  |

2. The following grouping guidelines shall be followed for Grant of Licence/Change in scope of licence :-

- i) Container from each group, preferably with highest nominal capacity shall be tested for all requirements except Product Compatibility test (Clause 7.1) to cover container of all capacities in that group.
  - ii) If mutually agreed between purchaser and supplier for carrying out Product Compatibility test (Clause 7.1) separate samples for each group, may be drawn for testing of this requirement. If product compatibility test is not to be carried out, the manufacturer shall submit an undertaking that no claim for conformity of the product to such requirements will be made.
  - iii) If container with handle is manufactured, Handle strength (Clause 7.7) shall also be tested. If container with handle is tested for all requirements, container without handle in that group may also be covered.
  - iv) If container without handle is covered in the licence and extension of Scope is requested for container with Handle, Handle strength (Clause 7.7) test only shall be carried out.
3. The Firm shall declare the varieties intended to be covered 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**

**TO PRODUCT MANUAL FOR BLOW MOULDED POLYOLEFIN CONTAINERS  
PART 3 - CLOSED HEAD CONTAINERS OVER 60 LITRES UP TO AND INCLUDING  
250 LITRES ACCORDING TO IS 7408 Part 3: 2000**

**LIST OF TEST EQUIPMENT**

*Major test equipment required to test as per the Indian Standard*

| <b>Sl. No.</b> | <b>Tests used in with Clause Reference</b>      | <b>Test Equipment</b>                                                                                                  |
|----------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 1              | Brimful Capacity<br>Cl 5, Table 1               | Weighing Balance, Air conditioner                                                                                      |
| 2              | Tolerances and Dimensions<br>Cl 6.1             | Measuring Tape                                                                                                         |
|                | Wall Thickness,<br>Cl 6.2                       | Micrometer/screw gauge or dial caliper gauge accuracy 0.02 mm, Sample cutter/ scissors or hacksaw                      |
|                | Container Overall Height<br>Cl 6.3              | Micrometre height gauge or Vernier Caliper or Measuring Scale                                                          |
|                | Container Overall Plan Dimension<br>Cl 6.4      | Calipers/Measuring Tape, Rule/steel scale                                                                              |
|                | Container Height to Neck face<br>Cl 6.5         | Micrometre height gauge/Measuring Scale                                                                                |
|                | Internal Neck Diameter<br>Cl 6.6                | Micrometer or Vernier Caliper, accuracy 0.02mm                                                                         |
|                | External Neck Diameter<br>Cl 6.7                | Micrometer or Vernier Caliper, accuracy 0.02mm                                                                         |
|                | Thread Diameter<br>Cl 6.8                       | Micrometer or Vernier Caliper, accuracy 0.02mm                                                                         |
|                | Neck Height<br>Cl 6.9                           | Micrometre depth gauge/Vernier Caliper                                                                                 |
|                | Non-threaded Necks<br>Cl 6.10                   | Vernier Caliper<br>Steel scale                                                                                         |
| 3.             | Product Compatibility<br>Cl 7.1                 | Sample cutter, Vernier Caliper, Micrometer, Steel scale<br>Weighing Balance, Glass Beaker, Hot Air Oven, glass vessel. |
| 4.             | Environmental Stress-Crack Resistance<br>Cl 7.2 | Teepol B 300, Sample cutter, Circulation Air oven                                                                      |
| 5.             | Drop Impact Strength<br>Cl 7.3                  | Drop Impact Tester, height 1.2 m, Test liquid                                                                          |
| 6.             | Top Load Resistance<br>Cl 7.4                   | Containers of same size, Measuring tap                                                                                 |
| 7.             | Ink Adhesion of Printed Containers<br>Cl 7.5    | 25 mm wide transparent pressure sensitive tape or Cello Tape                                                           |
| 8.             | Product Resistance of Printed Containers        | Sample cutter, Hot air Oven, Hard Tissue Paper                                                                         |

|     |                           |                                              |
|-----|---------------------------|----------------------------------------------|
|     | Cl 7.6                    |                                              |
| 9.  | Handle Strength<br>Cl 7.7 | Dead Weight                                  |
| 10. | Closure Test<br>Cl. 8     | Dye Indicator Solution, White Blotting Paper |

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

## ANNEX C

### TO PRODUCT MANUAL FOR BLOW MOULDED POLYOLEFIN CONTAINERS PART 3 - CLOSED HEAD CONTAINERS OVER 60 LITRES UP TO AND INCLUDING 250 LITRES ACCORDING TO IS 7408 Part 3 : 2000

#### 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 & MARKING** – The Standard Mark as given in the Schedule of the licence shall be marked on the blow moulded polyolefin containers, provided always that the product thus marked conforms to all the requirement of the specification.

3.1 The containers shall be legibly and indelibly marked with the details provided under clause 9.1 of IS 7408 (Part 3). In addition, the following information shall be marked on the containers:

a) BIS Licence No. CM/L.

b) BIS website details i.e –“For details of BIS Certification please visit [www.bis.gov.in](http://www.bis.gov.in)

**4. CONTROL UNIT** – For the purpose of this scheme, one day’s production of containers of same capacity, from the same batch of raw material, produced during continuous running of one machine 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. MATERIAL** – In case of HDPE containers, the material used for the container body shall be of the HDPE grade designations conforming to IS 7328. The recommended HDPE grade designations are given in Annex B of IS 7408 (Part 3).

**7. 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. Any rejected material which is potentially re-salable be sheared or cut or deformed in such a manner that it cannot be used for any other purpose except re-processing. A separate record shall be maintained giving information on quantity and cast number/coil number/control unit number, as applicable, relating to all such

rejections/defective/sub-standard material of the production not conforming to the requirements of the Specification and the method of its disposal. Such material shall in no case be stored together with that conforming to the Specification. The Standard Mark (if already applied) on rejected material should be defaced.

**TABLE 1**  
**LEVELS OF CONTROL**

| (1)          |                                                                             |                      |                  | (2)                                                                            | (3)               |                                                 |                                                                                |
|--------------|-----------------------------------------------------------------------------|----------------------|------------------|--------------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------------------------------------------------------------------|
| Test Details |                                                                             |                      |                  | Test equipment requirement<br>R: required (or)<br>S: Sub-contracting permitted | Levels of Control |                                                 |                                                                                |
| Cl.          | Requirement                                                                 | Test Method Cl. Ref. | Test Method IS   |                                                                                | No. of Sample     | Frequency                                       | Remarks                                                                        |
| 4            | Material                                                                    | 5.2                  | IS 7328          | S                                                                              | One               | Each consignment                                | No further testing required if accompanied with test certificate or ISI marked |
|              | i. Density                                                                  | 5.2.1.1              |                  |                                                                                |                   |                                                 |                                                                                |
|              | ii. MFR                                                                     | 5.2.1.2              |                  |                                                                                |                   |                                                 |                                                                                |
| 5            | Recommended nominal capacities and corresponding minimum brimful capacities | 5                    | IS 2798          | R                                                                              | One               | Each Control Unit                               | -                                                                              |
| 6.2          | Wall Thickness                                                              | 4.5                  | IS 2798          | R                                                                              | One               | Each Control Unit                               | -                                                                              |
| 6.3          | Container Overall Height                                                    | 4.1                  | IS 2798          | R                                                                              | One               | 50 tanks or part thereof from each control unit | -                                                                              |
| 6.4          | Container Overall Plan Dimensions                                           | Annex C              | IS 7408 (Part 3) | R                                                                              | One               |                                                 | -                                                                              |
| 6.5          | Container Height to Neck face                                               | Annex D              | IS 7408 (Part 3) | R                                                                              | One               |                                                 | -                                                                              |
| 6.6          | Internal Neck Diameter                                                      | 4.4                  | IS 2798          | R                                                                              | One               |                                                 | -                                                                              |
| 6.7          | External Neck Diameter                                                      | 4.4                  | IS 2798          | R                                                                              | One               |                                                 | -                                                                              |
| 6.8          | Thread Diameter                                                             | 4.4                  | IS 2798          | R                                                                              | One               |                                                 | -                                                                              |
| 6.9          | Neck Height                                                                 | 4.3                  | IS 2798          | R                                                                              | One               |                                                 | -                                                                              |
| 6.10         | Non-threaded Necks                                                          | 6.10                 | IS 7408 (Part 3) | R                                                                              | One               |                                                 | -                                                                              |

|     |                                          |         |         |   |     |                                    |                                                                            |
|-----|------------------------------------------|---------|---------|---|-----|------------------------------------|----------------------------------------------------------------------------|
| 7.1 | Product Compatibility                    | 12      | IS 2798 | S | One | Once in six months                 | Test shall be subject to agreement between the purchaser and the supplier. |
| 7.2 | Environmental Stress-Crack Resistance    | Annex K | IS 6312 | S | One | Once in three months               |                                                                            |
| 7.3 | Drop Impact Strength                     | Annex E | IS 6312 | S | One | Once in three months               |                                                                            |
| 7.4 | Top Load Resistance                      | 9       | IS 2798 | R | One | Every 5 <sup>th</sup> control unit |                                                                            |
| 7.5 | Ink Adhesion of Printed Containers       | 13      | IS 2798 | R | One | Every control unit                 |                                                                            |
| 7.6 | Product Resistance of Printed Containers | 14      | IS 2798 | R | One | Every 5 <sup>th</sup> control unit |                                                                            |
| 7.7 | Handle Strength                          | 11      | IS 2798 | R | One | Every 5 <sup>th</sup> control unit |                                                                            |
| 8   | Closure Test                             | 6.1     | IS 2798 | R | One | Every control unit                 |                                                                            |

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 by BO Head.