



**उत्पाद मैनुअल**  
**औद्योगिक सुरक्षा जाल के लिए**  
**विनिर्देश**

IS 11057:1984 के अनुसार

**PRODUCT MANUAL**  
**FOR SPECIFICATION FOR INDUSTRIAL SAFETY NETS**  
**ACCORDING TO IS 11057:1984**

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<br>Product                        | : | IS 11057:1984                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|    | शीर्षक<br>Title                          | : | Specification for Industrial Safety Nets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|    | संशोधनों की संख्या<br>No. of amendments  | : | 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2. | नमूना दिशानिर्देश<br>Sampling Guidelines |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| a) | कच्चा माल<br>Raw material                | : | <p>Nets shall be made from man-made fibre ropes and and plaited cords, with the exception of polyethylene ropes and cords [CI 3.1]. Each consignment of ropes/ plaited cords shall be received with test certificate for non- ISI marked ropes/ plaited cords.</p> <p>An ultraviolet stabilizer should be incorporated in the fibre [Note 2 under CI 3.1]</p> <p>Safety nets and netting from which safety nets are made shall be heat set to avoid knots and/or joint slippages. The knots (of nettings/nets) shall not change position by more than 10% average when a load of 20% of mesh</p> |

|    |                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                          |
|----|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                                                             | (ropes/ cords) breaking strength is applied after installing a mesh on a tensile testing machine as defined in ISO 1806. The average should be calculated over readings of 3 meshes at all 4 joints of the mesh                                                                                                                                          |
| b) | <b>समूहीकरण दिशानिर्देश<br/>Grouping Guidelines</b>                                                                         | : If sample suitable for use at maximum duty height up to 6 meter is drawn then other variety suitable for use at maximum duty height up to 1 meter also be covered.<br><br>Scope shall be restricted based on manufacturing and testing facilities available. During operation of licence, Samples of all covered varieties shall be drawn in rotation. |
| c) | <b>नमूने का आकार<br/>Sample Size</b>                                                                                        | : 3 pieces of safety net<br>3 meter each of mesh cord, Tie cord and Border cord                                                                                                                                                                                                                                                                          |
| 3. | <b>परीक्षण उपकरणों की सूची<br/>List of Test Equipment</b>                                                                   | : Please refer ANNEX – <u>A</u>                                                                                                                                                                                                                                                                                                                          |
| 4. | <b>निरीक्षण और परीक्षण की स्कीम<br/>Scheme of Inspection and Testing</b>                                                    | : Please refer ANNEX – <u>B</u>                                                                                                                                                                                                                                                                                                                          |
| 5. | <b>एक दिन में संभावित परीक्षण<br/>Possible tests in aday</b>                                                                |                                                                                                                                                                                                                                                                                                                                                          |
|    | <ul style="list-style-type: none"> <li>• Minimum breaking force</li> <li>• Performance test</li> <li>• Dimension</li> </ul> |                                                                                                                                                                                                                                                                                                                                                          |
| 6. | <b>लाइसेंस का दायरा /Scope of the Licence:</b>                                                                              |                                                                                                                                                                                                                                                                                                                                                          |
|    | “Licence is granted to use Standard Mark as per IS11057 with the following scope:                                           |                                                                                                                                                                                                                                                                                                                                                          |
|    | Name of the product                                                                                                         | Industrial Safety Net                                                                                                                                                                                                                                                                                                                                    |
|    | Suitable for maximum duty height up to                                                                                      | 6 meter/ 1 meter                                                                                                                                                                                                                                                                                                                                         |

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

**ANNEX-A  
TO PRODUCT MANUAL  
LIST OF TEST EQUIPMENTS**

**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/Chemical</b>                                                                                                                                                                                                                                                             |
|----------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>       | Dimensions Cl 4.0                          | Vernier caliper,<br>Measuring scale,<br>Weighing Scale                                                                                                                                                                                                                                     |
| <b>2</b>       | Performance of Safety Nets, Cl 6.1 to 6.4  | A structure of minimum (width) 4 meter x (length) 5 meter x (height) 5 meter.<br>Test mass, consisting of a bag of sand of mass 140 kg with hemispherical bottom of radius of 20 cm ( 1260 cm <sup>2</sup> cross-section)<br>Arrangement to drop the test mass of from height of 12 meter. |
| <b>3</b>       | Breaking Strength of the Mesh Cord, Cl 6.5 | Tensile testing machine – Constant rate traverse type, as per IS 7071-4,<br>Measuring tape.                                                                                                                                                                                                |

**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 each net provided always that the material so marked conforms to each requirement of the specification.

3.1 Each net shall be provided with soft, flexible, permanent labels of textile or plastics material, at two different positions, and also marked with indelible ink in letters of 3 cm in height with the following wording: "MAXIMUM DISTANCE BELOW WORKING LEVEL 'X' METRES" where 'X' is the duty height at which the net complies with requirements given in Clause 6 of IS 11057

3.2 The label shall also be marked with the following:

- a) Manufacturer's Name or Trade Mark
- b) The nominal size of safety net
- c) The batch or control unit number and date of manufacture, and
- d) The deflection at the centre of the net
- e) Length of the mesh side
- f) BIS licence number and "For BIS certification details please visit [www.bis.gov.in](http://www.bis.gov.in)"

3.3 The manufacturer shall supply a certificate with each net or batch of nets of the same type and construction that specifies

- a) Type of net, the method of construction and the materials used;
- b) Breaking strengths of the mesh and border cords in the net supplied;
- c) Breaking strengths of the mesh and border cords in the net that has been tested as described in Appendix A;
- d) Drop height and the deflection at the center of a net with the same construction, when tested as described in Appendix A; and

5. **CONTROLUNIT-** For the purpose of this scheme, all safety nets of same type, duty height and size manufactured in a day may be taken as one control unit.

6. **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.

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

7. **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**  
**LEVELSOFCONTROL**

| (1)          |             |                               |          | (2)                                                                        | (3)              |                              |                                                                                                                                                           |
|--------------|-------------|-------------------------------|----------|----------------------------------------------------------------------------|------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Details |             |                               |          | Test equipment requirement<br>R: required (or)S: Sub-contracting permitted | Levelsof Control |                              |                                                                                                                                                           |
| Cl.          | Requirement | Test Methods Clause Reference |          |                                                                            | No. of Sample    | Frequency                    | Remarks                                                                                                                                                   |
| 3.1          | Materials   | 3.1                           | IS 11057 | S                                                                          | One              | Each consignment of material | If consignment is accompanied by supplier's test certificate indicating conformity of the material to the specified requirement, testing is not necessary |
| 3.2          | Design      | 3.2                           | IS 11057 | R                                                                          | See 6            |                              |                                                                                                                                                           |
| 3.3          | Cords       | 3.3                           | IS 11057 | R                                                                          |                  | All nets                     |                                                                                                                                                           |
| 3.4          | Tie Cords   | 3.4                           | IS 11057 | R                                                                          |                  | All nets                     |                                                                                                                                                           |

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|            |                                                          |                  |                                            |   |          |                   |                                                                                                                            |
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| 3.5        | Test Cords                                               | 3.5              | IS 11057                                   | R |          | All nets          |                                                                                                                            |
| 3.6        | Multi Layer Nets                                         | 3.6              | IS 11057                                   | R |          | All nets          |                                                                                                                            |
| 3.7        | Overlay nets                                             | 3.7              | IS 11057                                   | R |          | All nets          |                                                                                                                            |
| 4          | Dimension                                                | 4                | IS 11057                                   | R |          | All nets          | -                                                                                                                          |
| 5          | Finish                                                   | 5                | IS 11057                                   | R |          | All nets          |                                                                                                                            |
| 6.1 to 6.4 | Performance                                              | 6 and Appendix A | IS 11057                                   | R | One      | Once in a month   | This test to be also carried out whenever there is any change in material, mesh size, Mesh cord, Tie cord and Border cord. |
| 6.5        | Breaking Strength of Mesh Cord, Tie cord and Border cord | 6.5              | IS 11057<br>IS 4572<br>IS 7071(Pt 4): 1989 | R | Once     | Once in a month   | -do-                                                                                                                       |
| 7          | Marking and Labelling                                    | 7                | IS 11057                                   | R | All nets | Each 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 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.