# उत्पाद मैन्युअल
# आई एस 17635:2022 के अनुसार
# बेड्स के लिए

**दस्तावेज़ संख्या – पीएम/आईएस 17635/1/दिसंबर 2022**

***भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूलयाांकन) विनियम , 2018 के तहत यह उत्पाद मैन्युअल प्रमाणीकरण के प्रचालन में रीति और पारिर्शिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है ।***

# PRODUCT MANUAL FOR
# BEDS
# ACCORDING TO IS 17635:2022

**Document No.- PM/ IS 17635/1/Dec 2022**

***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.***

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<table>
<tr><td>1.</td><td>Product</td><td>:</td><td>IS 17635:2022</td></tr>
<tr><td></td><td>Title</td><td>:</td><td>Beds</td></tr>
<tr><td></td><td>No. of Amendments</td><td>:</td><td>Nil</td></tr>
<tr><td>2.</td><td colspan="3">Sampling Guidelines:</td></tr>
<tr><td>a)</td><td>Raw material</td><td>:</td><td>-</td></tr>
<tr><td>b)</td><td>Grouping guidelines</td><td>:</td><td>Please refer ANNEX – A</td></tr>
<tr><td>c)</td><td>Sample Size</td><td>:</td><td>• 2 Beds – For Dimensional and Safety requirements (clause 4, 5 & 7)<br>• Material cut panels, Fabric & Leather pieces – For Surface Performance tests (clause 6)</td></tr>
<tr><td>3.</td><td>List of Test Equipment</td><td>:</td><td>Please refer ANNEX – B</td></tr>
<tr><td>4.</td><td>Scheme of Inspection and Testing</td><td>:</td><td>Please refer ANNEX – C</td></tr>
<tr><td>5.</td><td colspan="3">Possible tests in a day:</td></tr>
<tr><td></td><td colspan="3">Design and Workmanship (Cl 4)<br>Dimensions (Cl 5)<br>Stability test and Static-load test (Cl 7.3 & 7.4)</td></tr>
<tr><td rowspan="3">6.</td><td colspan="3">Scope of the Licence:</td></tr>
<tr><td colspan="3">Licence is granted to use Standard Mark as per IS 17635:2022 with the following scope:</td></tr>
<tr><td colspan="2">Name of the product</td><td>Beds</td></tr>
<tr><td colspan="2">Design/ Model Number</td><td></td></tr>
</table>

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# ANNEX A

## Grouping Guidelines

1. IS 17635:2022 covers the requirements related to the performance and safety of beds for adults for domestic and non-domestic use. The Standard applies to completely manufactured/ fabricated beds as well as ready-to-assemble units. The design/ model shall be declared by the manufacturer.

2. The guidelines given below shall be followed for GoL/ CSoL:

   Beds of each design/model number shall be tested to cover that particular design/model number.

3. The design/model declared by manufacturer shall contain the details of principle materials of beds (e.g. wooden bed, steel bed, plastic bed, etc.). The purpose of declaring the principle material is to identify the material of product covered under licence scope. Each design/model shall be accompanied with drawing and photograph of the product.

4. The Firm shall declare the varieties of beds they intend to cover in the Licence. The Scope of Licence may be restricted based on the manufacturing and testing capabilities of the manufacturer.

5. During the operation of the Licence, BO shall ensure that all 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 (clause 5) | - Micrometer, Vernier caliper<br>- Measuring tape<br>- Steel scale<br>- Angle protractor |
| 2 | Surface Performance (Tests on rigid surfaces of materials) | |
| | Resistance to mechanical damage | - As per IS 17641:2021,<br>or, as per Annex B-2 of IS 17637:2021 |
| | Pencil hardness | - as per Annex C-1 of IS 17637:2021 |
| | Resistance to wet heat | - Air conditioner, humidifier & hygrometer<br>- as per Clause 5 of IS 17639:2021 |
| | Resistance to dry heat | - as per Clause 5 of IS 17638:2021 |
| | Resistance to marking by cold liquids | - as per Clause 3 of IS 17640:2021 |
| | Resistance to marking by cold oils and fats | - as per Clause 3 of IS 17640:2021 |
| | Adhesive performance | - as per Annex D-2 of IS 17637:2021 |
| 3 | Surface Performance (Fabric & leather (synthetic & Natural) | |
| | Breaking load | - as per IS 1969(Part 1) or IS 7016 (Part 2) |
| | Elongation at break | - as per IS 1969(Part 1) or IS 7016 (Part 2) |
| | Tear strength for fabric and leather | - as per IS 6489 (Part 1) IS 7016 (Part 3/Sec 1) or<br>- IS 7016 (Part 3/Sec 2) |
| | Colour fastness to light for fabric and leather | - as per IS/ISO 105-B02 |
| | Colour fastness to rubbing for fabric and leather | - as per IS/ISO 105-X12 |
| | Colour fastness to perspiration | - as per IS/ISO 105-E04 |
| | Colour fastness to water for fabric and leather | - as per IS/ISO 105- E01 |
| | Pilling resistance | - as per IS 10971 (Part 1) or (Part 2) |
| | Coating adhesion strength | - as per IS 7016 (Part 5) |
| | Seam slippage | - as per IS/ISO 13936-2 |
| | Resistance to damage by flexing | - as per IS 7016 (Part 4) |
| | Abrasion resistance | - as per IS 12673 (Part 2) |
| | Bursting strength | - as per IS 1966 (Part 1) |
| | Resistance to cold | - as per IS 1259 |
| | Tear strength for natural leather | - as per IS 5914 |

| | | |
|---|---|---|
| | Flexing endurance | - as per IS 5914 |
| | Finish adhesion | - as per IS 6191 (Part 5) |
| | Colour fastness to artificial light | - as per IS/ISO 105 B02 |
| | Colour fastness to rubbing for natural leather | - as per IS 6191 (Part 4) |
| | Colour fastness to water spotting | - as per IS 6191 (Part 1) |
| | Water vapour permeability | - as per IS 5914 |
| | Colour fastness to water for natural leather | - as per IS 6191 (Part 2) |
| | Tests on Furniture - | |
| 4 | Stability test (Clause 7.3) | - Test surface as per Clause B-2 of IS 17635<br>- Stops as per Clause B-3 of IS 17635<br>- Loading Pad as per Clause B-4 of IS 17635<br>- Smaller Loading Pad as per Clause B-5 of IS 17635<br>- Test mattress as per Clause B-6 of IS 17635<br>- Impactor as per Clause B-7 of IS 17635<br>- Bag as per Clause B-7.1 of IS 17635<br>- Filling Media as per Clause B-7.2 of IS 17635<br>- Test Bed Base (Unframed) as per Clause B-8 of IS 17635<br>- Test Bed Base (Framed) as per Clause B-9 of IS 17635<br>- Test Support (Unframed Bed Bases) as per Clause B-10 of IS 17635<br>- Test Support (Framed Bed Bases) as per Clause B-11 of IS 17635<br>- Test Mass as per Clause B-12 of IS 17635<br>- |
| 5 | Vertical Static-Load test (Clause 7.4) | |
| | Horizontal Static Load Tests (Clause 7.5) | |
| 6 | Durability test (Clause 7.6) | |
| | Vertical Impact Test (Clause 7.7) | |
| | Durability of Storage Elements in Beds (Clause 8) | |

***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 equipment.

**2. TEST RECORDS** –The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. LABELLING AND MARKING** – As per the requirements of IS 17635:2022.

**4. CONTROL UNIT** – Bed of the same design/model number manufactured from the same materials and same consignment of materials, in a week under similar conditions of manufacturing 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 2.0 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**

| (1) | | | | (2) | (3) | | |
|---|---|---|---|---|---|---|---|
| **Test Details** | | | | **Test equipment requirement** R: Required (or) S:Subcontracting permitted | **Levels ofControl** | | |
| **Cl.** | **Requirement** | **Test Methods** | | | **No. of Sample** | **Frequency** | **Remarks** |
| | | **Clause** | **Reference** | | | | |
| 4 | Design and workmanship | 4 | IS 17635 | 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. | | |
| 5 | Dimensions | - | IS 5533 | R | | | |
| 6 | **Surface performance (of materials)** | | | | | | |
| | Rigid Surfaces | - | IS 17637 | S | One | Each Consignment | The test samples for surface performance are to be tested on materials only, after their surface treatment and not on assembled chair |
| | Fabric and Synthetic Leather | | | | | | |
| | Natural Leather | | | | | | |
| **7** | **SAFETY REQUIREMENTS** | | | | | | |
| 7.3 | Stability Test | 7.3.1 | IS 17635 | R | One | Each control unit | - |
| 7.4 | Vertical Static Load Tests | | | | | | |
| | Vertical Static Load on Bed Base | 7.4.1 | IS 17635 | R | One | Each control unit | - |
| | Vertical Static Load on Side Rail | 7.4.2 | | | | | |
| 7.5 | Horizontal Static Load Tests | | | | | | |
| | Horizontal Static Load on Headboard -<br>(i) For beds ≤ 1 200 mm in width<br>(ii) For beds > 1 200 mm in width | 7.5.1 | IS 17635 | R | One | Each control unit | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Horizontal Static Load Test of Beds Without Headboard | 7.5.2 | | | | | |
| 7.6 | **Durability Tests** | | | | | | |
| | Vertical Durability Test of Bed Base | 7.6.1 | IS 17635 | S | One | Once in three months | Each design/model shall be tested in rotation so that all the designs/ models are tested in a period of two years |
| | Horizontal Durability Test of Bed Frame | 7.6.2 | | | | | |
| | Horizontal Durability Test of Headboards<br>(i) For beds ≤ 1 200 mm in width<br>(ii)For beds > 1 200 mm in width | 7.6.3 | | | | | |
| 7.7 | Vertical Impact Test | 7.7 | IS 17635 | R | One | Each control unit | - |
| 8 | **Durability of Storage Elements in Beds** | | | | | | |
| | Mechanisms for Lifting Bed Bases (Cl 8.1) | | | | | | |
| | General | 8.1.1 | IS 17635 | S | One | Once in three months | Each design/model shall be tested in rotation so that all the designs/ models are tested in a period of two years |
| | Durability of Mechanisms for Lifting Bed Bases | 8.1.2 | | | | | |
| | Extendable Storage Elements (Cl 8.2) | | | | | | |
| | General | 8.2.1 | IS 17635 | S | One | Once in three months | Each design/model shall be tested in rotation so that all the designs/ models are tested in a period of two years |
| | Durability of Extendable Storage Elements | 8.2.2 | | | | | |

Note-1: All applicable tests as mentioned in 7 shall be carried out on the same sample and in the sequence as the clauses are numbered in this standard. However, the durability of storage elements shall be tested on the same sample before the safety tests.

Note-2: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-3: 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.