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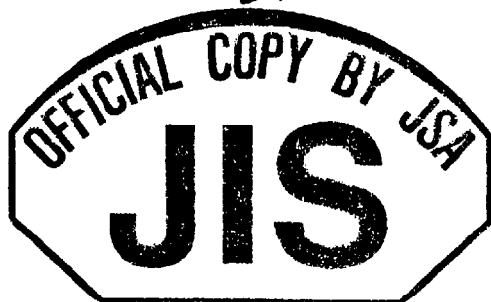
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## JAPANESE INDUSTRIAL STANDARD

Storage Furniture for Dwellings



JIS A 4415-1984



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# JAPANESE STANDARDS ASSOCIATION



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Storage Furniture for Dwellings

J I S  
A 4415-1984

## 1. Scope

This Japanese Industrial Standard specifies storage furnitures for storage partition unit used for dwellings, hereinafter referred to as the "furniture".

Remarks 1. The storage furniture herein means single article furniture, hereinafter referred to as the "furniture", for the purpose of being used as combined furnitures.

2. The units and numerical values given in { } in this standard are in accordance with the International System of Units (SI) and appended for reference.

## 2. Classification

The classification of furnitures shall be as given in Table 1.

Table 1

| Classifica-<br>tion | Symbol | Remark                                                                                     |
|---------------------|--------|--------------------------------------------------------------------------------------------|
| For clothing        | W      | Furnitures having such storage functions as those of wardrobe and chest of drawers.        |
| For tableware       | K      | Furnitures having such storage functions as those of tableware shelf and tea cabinet.      |
| For books           | B      | Furnitures having such storage functions as those of bookcase and bookshelf.               |
| For composite use   | C      | Furnitures respectively combined with either of clothing use, tableware use and books use. |

Applicable Standards and Reference Standard: See page 22 and 23.

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## 3. Dimensions

3.1 Nominal Dimension of Module The nominal dimension of module of furnitures shall be as given in Table 2.

Table 2

| Direction          | Nominal dimension of module                                            |
|--------------------|------------------------------------------------------------------------|
| Frontage direction | 400 (450) 600 800 900 1000 (1100) 1200 1500 (1700) 1800                |
| Depth direction    | 200 300 400 450 600                                                    |
| Height direction   | 400 500 600 700 800 900 1000 1200 1400 1500 1600 (1700) 1800 1900 2200 |

Remark: The sizes in ( ) are approved for some time.

3.2 Manufacturing Dimensions The manufacturing dimensions of furnitures shall be selected from the nominal dimensions of module, and shall be 0 to 10 mm in the height and depth directions and 0 to 20 mm in the frontage direction less than those of nominal dimensions.

3.3 Manufacturing Tolerance The tolerance of manufacturing dimensions of furnitures shall be 3 mm, and the dimensions of finished product shall not exceed the nominal dimensions of module.

## 4. Quality

4.1 Finished Products The finished products shall be as follows:

- (1) The appearance of furnitures shall be good and free from remarkable defects harmful to the fine view such as irregular colour, delamination, deformations, unevenness, flaws, etc.
- (2) The part coming in direct contact with human body and clothing shall be free from sharp corner or dangerous projections.
- (3) The furnitures shall not generate volatile material or bad odor likely to have obstacles to use.

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(4) The furnitures shall be tested in accordance with 8. and comply with the specifications as shown in Table 3.

Table 3

| Item                 | Specification                                                                                                                                                                                                                                                       | Test method |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Stability            | There is no overturning or breakage.                                                                                                                                                                                                                                | 8.1.1       |
| Side load resistance | 1. The maximum value of displacement amount shall not exceed 15 mm per 900 mm in height of furniture.<br><br>2. There shall not be abnormalities such as hinderance of opening and closing of door leaf or drawer, looseness of respective parts, deformation, etc. | 8.1.2       |

(5) The furnitures built-in with electric wiring shall be tested in accordance with 8. and comply with the specifications given in Table 4.

Table 4

| Item                  | Specification                                          | Test method |
|-----------------------|--------------------------------------------------------|-------------|
| Insulation resistance | The insulation resistance shall be not less than 1 MΩ. | 8.1.3       |
| Withstand voltage     | The furniture shall endure for 1 min.                  | 8.1.4       |

4.2 Parts and Members The parts and members shall be as follows.

(1) The parts of furnitures shall be tested in accordance with 8. and comply with the specifications shown in Table 5. However, to decorative members (glass door leaf, frame work glass door leaf, door leaf and door pull for special use, etc.), this rule does not apply.

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Table 5

| Item                                     | Specification                                                                                                                                                                                                                                                                                                                                                                                                                            | Test method |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Strength of shelf board                  | <ol style="list-style-type: none"> <li>1. The maximum value of deflexion amount shall be not more than 3 mm per 900 mm in frontage of shelf board.</li> <li>2. There shall not be permanent deformation, and the likely to have hindrance to use in the condition removed of weight after test.</li> <li>3. There shall not be hindrance for opening and closing the door leaf or drawer due to the deflexion of shelf board.</li> </ol> | 8.2.2       |
| Strength and smoothness of drawer        | <ol style="list-style-type: none"> <li>1. The drawing out power and forcing in power shall be not more than 10 kgf {98 N} and the slide shall be smooth.</li> <li>2. The drawer part shall be free from abnormality such as damage, deformation, etc.</li> </ol>                                                                                                                                                                         | 8.2.3       |
| Strength of door leaf fitting part       | <ol style="list-style-type: none"> <li>1. The door leaf shall be able to be smoothly opened and closed to its full width.</li> <li>2. The rotary part of door leaf shall be free from the generation of hindrance for opening and closing.</li> <li>3. There shall not be remarkable sound generation.</li> </ol>                                                                                                                        | 8.2.4       |
| Repeated drop strength of flap type door | The metallic ornament and fitting part of flap type door leaf shall be free from the deformation or damage likely to have hindrance to use.                                                                                                                                                                                                                                                                                              | 8.2.5       |
| Strength of flap type door leaf          | The displacement amount shall be not more than 1.5 mm per 100 mm in the depth of flap type door leaf.                                                                                                                                                                                                                                                                                                                                    | 8.2.6       |
| Strength of door pull fitting part       | The door pull fitting part shall be free from looseness, loss and damage.                                                                                                                                                                                                                                                                                                                                                                | 8.2.7       |

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Table 5 (Continued)

| Item                                    | Specification                                                                                                                              | Test method |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Smoothness of horizontally sliding door | 1. The sliding door shall be able to be smoothly opened and closed.<br>2. The sliding door shall be free from remarkable sound generation. | 8.2.8       |

(2) The surface material of furnitures not easy to be replaced. among those surface materials shall be tested in accordance with 8. and comply with the specifications shown in Table 6.

Table 6

| Item                     | Specification                                                                    | Test method |
|--------------------------|----------------------------------------------------------------------------------|-------------|
| Contamination resistance | The surface material shall not be remarkable due to the remaining crayon traces. | 8.2.9       |
| Humidity resistance      | There shall be no rust, nor blister.                                             | 8.2.10      |

(3) For the painting of steel sheet and steel material used for furnitures, the test of 8.2.11 shall be carried out, and blistering and rust shall not be observed at 3 mm outside of both sides of the flaw.

## 5. Materials

The materials used for furnitures shall be as follows:

- (1) The lumber shall be that specified in the Japanese Agricultural Standard [Notification No. 1892] of lumbering or that equal or superior thereto.

The percentage of water content shall be not more than 15%, and measured in accordance with the method specified in JIS Z 2102. Further, the measurement may also be carried out according to an electrical measuring method.

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- (2) The ordinary plywood shall be of Class 1 or Class 2 specified in Japanese Agricultural Standard (Notification No. 932) of ordinary plywood and with dissipation quantity of F1 or F2 for formaldehyde.
- (3) The decorated plywood shall be of Type F or Type FW of natural wood decorated plywood and specially processed decorated plywood specified in Japanese Agricultural Standard (Notification No. 1373) of special plywood and with dissipation quantity of F1 or F2 for formaldehyde.
- (4) The fibreboard shall be that specified in JIS A 5907, and the fibreboard of medium specific gravity or that equal or superior thereto.
- (5) The particleboard shall be that specified in JIS A 5908 or that equal or superior thereto.
- (6) The decorative board of particleboard shall be that specified in JIS A 5909 or that equal or superior thereto.
- (7) The synthetic resin decorative sheets shall be synthetic resin film or that specified in JIS K 6903, or that equal or superior thereto.
- (8) The synthetic resin moldings shall be in accordance with Japanese Industrial Standard corresponding thereto, as appropriate.
- (9) The stainless steel sheet shall be those specified in JIS G 4305 and JIS G 4307, or that equal or superior thereto.
- (10) The steel materials shall be that specified in JIS G 3101, or that equal or superior thereto.
- (11) The steel sheet shall be those specified in JIS G 3131 and JIS G 3141 and the surface treated steel sheet produced therefrom specified in Japanese Industrial Standard or that corresponding thereto.