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JIS L 1911 : 2002

**Test methods of heat insulating
characteristics of FUTON**

ICS 59.080.01; 97.160

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS L 1911 : 1996** is replaced with **JIS L 1911 : 2002**.

Date of Establishment: 1996-06-01

Date of Revision: 2002-03-20

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Technical Committee on Consumer Life
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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Test methods of heat insulating characteristics of FUTON

Introduction This Japanese Industrial Standard to which no International Standard corresponds was developed in 1996 for the test methods of heat insulating characteristics of FUTON used in Japan.

In the revision on this occasion, the number and title of normatively referred standards have been changed in the wake of their revision and, in addition, the form has been changed in accordance with **JIS Z 8301**.

1 Scope This Standard specifies the test methods for assessing the heat insulating characteristics of the FUTON used for bedding⁽¹⁾.

Note ⁽¹⁾ Measuring at least 71 cm × 120 cm in width and length respectively.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS L 0212-3 *Glossary of textile terms (except clothes)—Part 3 : Beddings, others*

JIS L 2001 *Cotton wadding*

3 Definitions For the purposes of this Standard, the definitions given in **JIS L 0212-3** and the following definitions apply:

- a) **heat insulating characteristics** Performance to insulate the heat emitted from the human body at the time of sleep.
- b) **fill** Mass of fillers in the side cloth.

4 Classification The tests are classified as follows:

- a) **Net-bed test method (method A)** Method for measuring FUTON placed on a testing bed formed with net.
- b) **TATAMI bed test method (method B)** Method for measuring FUTON placed on a TATAMI.

5 Common condition The test room shall be kept in a state of temperature 20 ± 5 °C and humidity (65 ± 5) % and, moreover, of no wind (0.1 m/s in maximum).

6 Apparatus The apparatus consists of test bed, testing machine body and surface temperature controller.

a) **Test bed** The test bed shall be as follows:

- 1) **Net bed** As shown in Fig. 1, the net of 100 mm intervals in each of longitudinal and lateral directions is used and such material that the loosening of the net is not more than 50 mm at the middle part even when the FUTON, test machine body, etc. are also placed on.

Unit : mm

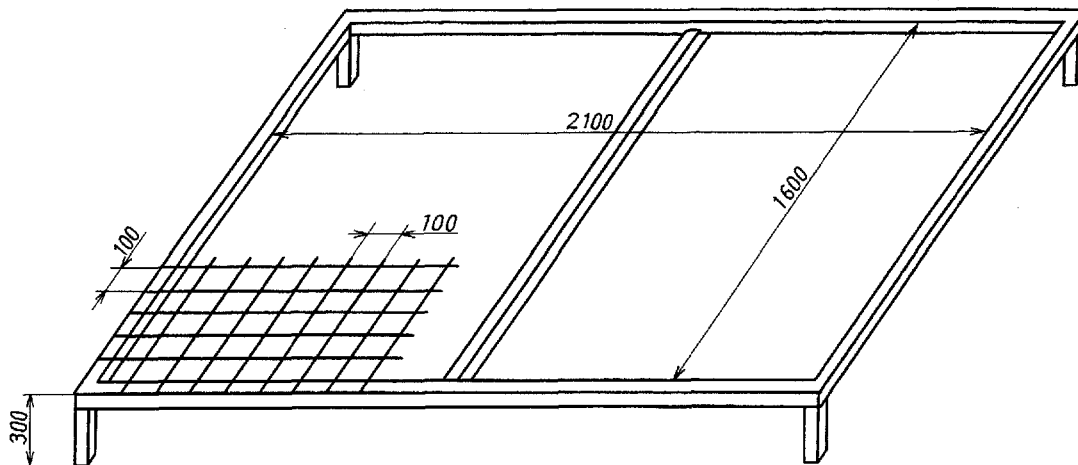


Fig. 1 Test bed for net bed test method (method A)

- 2) **TATAMI bed** made in such a way that a floor board (a plywood of 9 mm in thickness) is put on the test bed in 1) and TATAMI is placed on it.
- b) **Test machine body** The body is of the dimensions shown in Fig. 2 and of the construction shown in Fig. 3, and the overall surface is covered with copper plate.

In addition, the heater, copper plate, heat insulating material, heat flow meter and thermocouple for surface temperature controller and for safety device are as follows:

- 1) **Heater** using a sheet type carbon heater.
- 2) **Copper plate** of 0.1 mm in thickness and the surface of which is covered with blackbody making paint.
- 3) **Heat insulating material** such as foaming styrene having heat insulating performance.
- 4) **Heat flow meter** capable of measuring the heat flow nearest $\pm 2\%$.
- 5) **Thermocouple for surface temperature controller and for safety device** capable of measuring nearest $\pm 0.1\text{ }^{\circ}\text{C}$ within a range of temperature $0\text{ }^{\circ}\text{C}$ to $300\text{ }^{\circ}\text{C}$.

Unit : mm

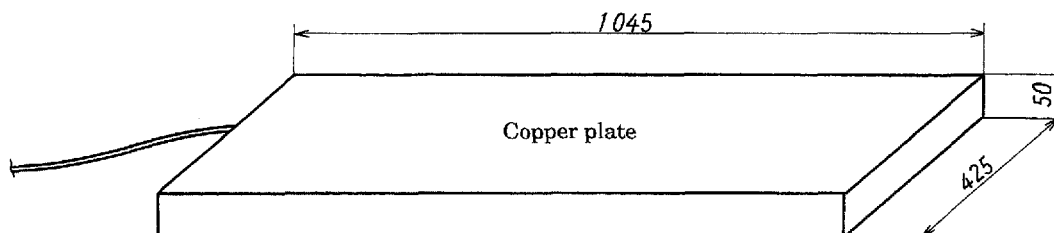


Fig. 2 Dimensions of test machine body