

JIS

JAPANESE INDUSTRIAL STANDARD

School furniture (desks and chairs for class room)

Ⓒ JIS S 1021—1991

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In the event of any doubt arising,
the original Standard in Japanese is to be final authority.



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School furniture (desks and chairs
for class room)

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1. Scope

This Japanese Industrial Standard specifies desks and chairs for use by one student in the class room of elementary schools, junior high schools, high schools, etc. (hereafter referred to as the "desks and chairs").

Remarks 1. Standards cited in this Standard are shown in Attached Table 1.

2. The International Standard corresponding to this Standard is the following:

ISO 5970: 1979 (Furniture – Chairs and tables for
educational institutions – Functional
sizes)

3. The units and numerical values given in { } in this Standard are based on the traditional units and are appended for informative reference.

2. Definitions

For the purposes of this Standard, the following definitions apply:

- (1) top board The composing part used as a work surface.
- (2) seat position reference point The point of reference for measuring the height, depth and width of the seat surface of a chair, roughly corresponding to the mid point of the line connecting the right and left ischial tuberosities in the sitting posture, obtained by d_s in Fig. 1 and Table 4.
- (3) back rest point The point of reference for measuring the height of the back rest of a chair, obtained by h_b in Fig. 1 and Table 4.
- (4) lower limb space The space required so as not to interfere with the action of the lower limbs during use of the chair. The parts of the chair such as the legs, containers, reinforcement, etc. shall not interfere with this space.
- (5) compatible stature The stature compatible with each number when using the desk and chair.
- (6) standard stature The stature to be the standard when obtaining the range of compatible statures, which indicates the stature most compatible for each number when using the desk and chair.

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3. Classification

Desks and chairs shall be classified as given in Table 1.

Table 1. Classification

	Class		Class
Desk	Special	Chair	Special
	No. 1		No. 1
	No. 2		No. 2
	No. 3		No. 3
	No. 4		No. 4
	No. 5		No. 5
	No. 6		No. 6
	No. 7		No. 7
	No. 8		No. 8
	No. 9		No. 9
	No. 10		No. 10
	No. 11		No. 11

4. Quality

4.1 Appearance The appearance shall be as follows:

- (1) The finish shall be good, free from flaws, cracks, deformation and mis welding.
- (2) The part in contact with the body shall be free from sharp protrusions or burrs.
- (3) The upper surface of the top-board shall be flat and free from uneven parts, and the finish shall be flat and smooth.
- (4) The painted surface shall be uniform in gloss and color tone, free from defects such as uneven painting, ragging, pinholes, etc., and flat and smooth.

4.2 Performance The performance shall be subjected to the testing specified in 9., and shall comply with the specifications of Table 2.

Table 2. Performance

Item		Performance	Test item	
Stability		Free from tilting, or overturning.	9.2	
Functionality	Smoothness of pulling out (1) (2)	The force required to pull out and push in shall be within 100 N {10 kgf}, and the sliding shall be smooth. Free from damage, deformation or misalignment harmful to use.	9.3.1	
	Warp and twisting of the upper surface of the top-board	Not more than 2 mm/1 m.	9.3.2	
Strength	Repeated impact resistance of the desk (1)	Each part shall be free from defects harmful to use, such as damage, deformation, damage of a junction, loosening, etc.	9.4.1	
	Repeated impact resistance of the chair		9.4.2	
	Repeated impact resistance of the container (1) (2)	Free from damage, deformation and misalignment harmful to use.	9.4.3	
	Vertical load of the drawer (1) (2)	The maximum deflection shall be not more than 5 mm, and each part shall be free from abnormalities.	9.4.4	
Paint film thickness on wood		The thickness of the paint film shall be as follows: Unit: μm	9.5.1	
Surface treatment (3)	Division	Constitutive parts		Thickness of paint film
	Desk	Upper surface of the top-board, wooden end, butt end, side plate, leg part		20 min.
		Lower surface of the top-board and rack plate		10 min.
	Chair	Leg part, back rest, upper surface of the seat plate		20 min.
Lower surface of the seat plate		10 min.		

Table 2 (Cont'd)

Item	Performance	Test item
Thickness of metal plating	Equal or superior to Class 1 Grade 2 or Class 2 Grade 2 specified in JIS H 8617 or Class 1 Grade 2 or Class 2 Grade 2 specified in JIS H 8610.	9.5.2
Resistance to liquid at room temperature ⁽⁴⁾	Equal or superior to Grade 3 specified in JIS A 1531.	9.5.3
Adhesiveness of paint film on the wood	Free from paint film on peeling	9.5.4
Adhesiveness of paint film on metal		9.5.5
Rust resistance of the paint film on metal	No blistering or rust 3 mm to either side of a scratch.	9.5.6
Hardness of paint film on metal	Not less than hardness H.	9.5.7

Surface treatment ⁽³⁾Notes ⁽¹⁾ This is not applicable to chairs.⁽²⁾ This is not applicable to those without a container or a drawer.⁽³⁾ The back side is excluded.⁽⁴⁾ This applies to the painted or plated metal surfaces.

5. Structure

The structure shall be as follows. However, where there is no corresponding part or product, the item is not applicable.

- (1) The assembly shall be made strong by welding or other method.
- (2) If the assembly uses screws or other metal fittings, these shall be fastened securely such that there is no loosening at the junctions.
- (3) The adhering parts shall be adequately adhered so as not to cause peeling.
- (4) Where wood or similar material is used, the structure shall be such that after assembly there will be no defects such as deviations, cracks, etc.
- (5) Parts of the desk such as the legs, hooks, etc., shall be such that the outmost ends are inside the edge of the top board.

In consideration of the safety, dangerous hooks shall not be used.

- (6) The leg ends shall be suitably treated so that moving the desk, does not scratch the floor surface or leaves traces.

They shall also be attached sufficiently tightly so as to not detach easily.

- (7) If there is a drawer, the structure shall be such that it does not fall out easily when pulled out.

Pressure from the under side by the knees, etc., shall not easily detach the bottom plate.

6. Dimensions

6.1 Manufacturing dimensions Dimensions of desks and chairs shall be as specified for the parts shown in Figs. 1 and 2, and the dimensions of each part shall be as given in Tables 3 and 4.

Fig. 1. (Example)

