

JIS

JAPANESE INDUSTRIAL STANDARD

Fire-resistive Containers

Ⓔ **JIS S 1037**—1989

Translated and Published

by

Japanese Standards Association

Printed in Japan

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



1. Scope

This Japanese Industrial Standard specifies fire-resistive containers for general paper, for magnetic tapes and flexible disc cartridges, hereinafter referred to as the "fire-resistive containers".

Remark: The units and numerical values given in { } in this Standard are based on the traditional unit and are currently the criteria in force.

2. Classification

The classification shall be in accordance with the combination of division according to contents and structure and division according to performance.

Applicable Standards:

JIS B 1501-Steel Balls for Ball Bearings

JIS C 1602-Thermocouples

JIS G 3101-Rolled Steel for General Structure

JIS G 3123-Cold Finished Carbon and Alloy Steel Bars

JIS G 3131-Hot-rolled Mild Steel Plates, Sheets and Strip

JIS G 3141-Cold Rolled Carbon Steel Sheets and Strip

JIS G 3505-Low Carbon Steel Wire Rods

JIS G 3532-Low Carbon Steel Wires

JIS G 4051-Carbon Steels for Machine Structural Use

JIS G 5501-Gray Iron Castings

JIS H 8601-Anodic Oxidation Coatings on Aluminium and Aluminium Alloys

JIS H 8610-Electroplated Coatings of Zinc on Iron and Steel

JIS H 8617-Electroplated Coatings of Nickel and Chromium

JIS K 5531-Nitrocellulose Lacquer

JIS K 5572-Phthalic Resin Enamel

- (1) Division According to Contents and Structure The division according to contents and structure shall be as given in Table 1.

Table 1. Division According to Contents and Structure

	Division	Symbol	Remark
For general paper	Fire-resistive container with double-swinging doors	P-D	Containers to store various papers mainly
	Fire-resistive container with single-swinging door	P-S	
	Fire-resistive container with sliding door	P-SL	
	Fire-resistive container with fling	P-DI	
	Fire-resistive container with drawer	P-DR	
For magnetic paper	Fire-resistive container with double-swinging doors	D-D	Containers to store magnetic tape, magnetic disc packs mainly
	Fire-resistive container with single-swinging door	D-S	
	Fire-resistive container with sliding door	D-SL	
	Fire-resistive container with drawer	D-DR	
For flexible disc cartridge	Fire-resistive container with double-swinging doors	FD-D	Containers to store flexible disc cartridges mainly
	Fire-resistive container with single-swinging door	FD-S	
	Fire-resistive container with sliding door	FD-SL	
	Fire-resistive container with drawer	FD-DR	

- (2) Division According to Performance The division according to performance shall be as given in Table 2.

Table 2. Division According to Performance

Division		Symbol
For general paper	3 h fire resistant and impact resistant	3 TS
	2 h fire resistant and impact resistant	2 TS
	1 h fire resistant and impact resistant	1 TS
	3 h fire resistant	3 T
	2 h fire resistant	2 T
	1 h fire resistant	1 T
For magnetic tapes and flexible disc cartridges	3 h fire resistant	3 T
	2 h fire resistant	2 T
	1 h fire resistant	1 T

3. Quality

3.1 Appearance The appearance shall be free from deformation, cracks and run out of joint parts and the parts to contact with personal body or clothes, free from sharp protrusions and the like to be safe.

3.2 Performance The performance shall be carried out with the tests specified in 8. and, comply with the specifications of Table 3 and Table 4.

Table 3. Performance (Part 1)

Item	Classification of applicable fire resistive containers	Performance	Test item
Load	Shelf board	Double-swinging doors, single-swinging door, sliding door, fling fire-resistive containers The deflection amount is not more than 3/1000 of length of shelf board. Strains do not remain on shelf board. The shelf-receiving fittings are free from deformation. Side plate or back plate of internal part of fire-resistive container is free from abnormalities.	8.1.1
	Doors	Double-swinging doors, fling single-swinging door, fling fire-resistive containers Opening and closing of door actuate smoothly. The space between the door and the body frame at opening and closing is normal. The operation mechanism of gate bar actuate smoothly. The bolt work devices actuate normally.	8.1.2
	Sliding door	Sliding-door fire-resistive container Opening and closing of sliding door actuate smoothly. The spacing between the door and the body frame at opening and closing is normal. The bolt work devices actuate smoothly.	8.1.3
	Drawer	Drawer fire-resistive container The front plate of drawer and the rail do not contact in right and left, and up and down. Opening and closing of drawer actuate smoothly. Space between the drawer and the body frame at opening and closing is normal. Bolt work devices actuate normally. Internal parts of body and drawer are free from abnormalities such as deformation, loosening, dislocation of weld, etc.	8.1.4
Repeating resistance	Drawer	Drawer fire-resistive container Drawing-out force and pressing-in force are not more than 39.2 N {4.0 kgf} and free from damage, deformation, etc. interferent to use.	8.2.1
	Opening and closing of sliding doors	Sliding-door fire-resistive container Opening and closing forces are not more than 39.2 N {4.0 kgf} and, free from damage, deformation, etc. interferent to use.	8.2.2
Stability	All-type fire-resistive containers	The body does not incline forwards.	8.3
Rust prevention of painted film	All-type fire-resistive containers	Outsides of 3 mm at both sides of flaw are not confirmed with blistering and rust.	8.4.2

Table 4. Performance (Part 2)

Item	Classification of applicable fire resistive containers	Performance	Test item
Fire resistance	Heating	Fire-resistive container for general paper Every internal part temperature is not higher than 180°C during heating test. The change in colour, deterioration, etc. of news paper are not remarkable and it is able to be read.	8.5.5
		Fire-resistive container for magnetic tape Every internal part temperature is not higher than 65°C and internal part humidity is not more than 85 % during heating test.	
		Fire-resistive container for flexible disc cartridge Every internal part temperature is not higher than 52°C and internal part humidity is not more than 80 % during heating test.	
	Combination use of quick heating and impact falling down	Fire-resistive container for general paper The specimen is not caused with bursting. The locked condition is maintained. The change in colour, deterioration are not remarkable and it is able to be read.	8.5.6

4. Structure

- (1) The lock shall be provided with one or more per one unit.

In lever operated key locks, these shall be at least 100 types with different keys and each key locks shall be provided with at least two keys.

Further, in the case of combination lock, that of three tumblers or more and of 300 or more kinds in number of conversion shall be provided. Further, in the case where other locks are provided in addition, the kind is optional.

Further, at the fling opening of fling fire-resistive container, one or more locks shall be provided. The lock shall be at least 100 types with different keys and each lock shall be provided with at least two keys.

- (2) The operation of locks and bolt mechanism shall actuate smoothly.
- (3) The operation mechanisms for lock and bolt shall be of such structure that these are not able to be detached in the condition where the door is closed unless being destroyed.
- (4) The fling fire-resistive container shall be of such structure that the contents are not able to be taken out easily from its fling opening.
- (5) For spaces between the door of double-swinging door, single-swinging door, sliding-door and fling fire resistive containers and the body frame and between the drawer of drawer fire-resistive container and the face side part of body frame, the total of right and left and upper and lower space dimensions shall respectively be not more than 3.2 mm. However, the one side space shall be not more than 2.3 mm.
- (6) Doors shall be of such structure that in the locked condition even though the hinge visible from outside is broken or detached, the door does not open.
- (7) The door of sliding door fire-resistive container shall be of such structure that in the locked condition it does not come out from the body.
- (8) Doors and drawers of fire-resistive container shall actuate smoothly.
- (9) The back side part of doors provided with bolt work mechanism shall be of such structure that it is so protected against the contact of contents.
- (10) Each drawer of drawer fire-resistive container shall be provided with a latch or other preventive device against flying out of drawer.

Further, the stop mechanism shall be rigid.

- (11) The gasket used for maintaining gas tightness in the container shall have endurance and heat resistance.