

Australian/New Zealand Standard™

Furniture — School and educational

**Part 3: Storage furniture — Strength,
durability and stability**



AS/NZS 4610.3:2020

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- Australian Chamber of Commerce and Industry
- Furniture and Cabinetmaking Association of New Zealand
- Furntech — Australasian Furnishing Research & Development Institute
- Human Factors and Ergonomics Society of New Zealand
- National Retail Association
- Plastics New Zealand

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-088, Furniture — Domestic and Commercial, to supersede AS/NZS 4610.3:1999, *Furniture — School and educational, Part 3: Tables and storage furniture — Strength, durability and stability*.

The objective of this Standard is to provide educational authorities, purchasers, specifiers, users, manufacturers and consumers with requirements for school and educational storage furniture that specifies strength, durability and stability requirements to assist in selection and evaluation.

This Standard is Part 3 of the AS/NZS 4610 series consisting of the following:

AS/NZS 4610.1, *Furniture — School and educational, Part 1: Tables — Strength, durability and stability*

AS/NZS 4610.2, *Furniture — School and educational, Part 2: Chairs — Strength, durability and stability*

AS/NZS 4610.3, *Furniture — School and educational, Part 3: Storage furniture — Strength, durability and stability* (this Standard)

The major changes in this edition are as follows:

- (a) Tests for hanging rails, locks, totes, dynamic stability and castors have been added.
- (b) A formaldehyde emissions requirement has been added for materials used in construction.
- (c) The use of size marks to determine test levels for storage furniture has been considered inappropriate and have been replaced with test levels of either “Normal” or “Severe”.

The terms “normative” and “informative” are used in Standards to define the application of the appendix to which they apply. A “normative” appendix is an integral and mandatory part of the Standard, whereas an “informative” appendix is only for information and guidance.

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Australian/New Zealand Standard

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Part 3: Storage furniture — Strength, durability and stability

Section 1 Scope and general

1.1 Scope

This Standard specifies strength, durability and stability requirements for free standing storage furniture for use in educational institutions.

Storage furniture includes items such as, cupboards, bookcases, shelving units, bag and tote storage units and lockers, magazine racks, teaching units, and trolleys. Storage furniture may be static or mobile.

Storage furniture may be fully assembled or require full or partial assembly.

The following are not covered by this Standard:

- (a) Wall mounted units, specialized library shelving units, filing cabinets, lecterns and similar items.
- (b) Electrical conformance, power and cable management.
- (c) Components made of glass.

NOTE Testing of glass is not covered in this Standard.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

ISO 48-4, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness)*

ISO 48-5, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method*

1.3 Terms and definitions

For the purpose of this Standard the following definitions apply.

1.3.1

accuracy

degree of closeness to the true value or the specified value of whatever dimension is being measured, or force applied

1.3.2

clear space

internal height of a drawer defined by the height of a box that just allows the drawer to be closed

1.3.3 damper

component or function of a component that absorbs energy and cushions the opening or closing of a door, drawer or flap

Note 1 to entry: See also *self-closing devices* ([1.3.21](#)), *self-assist closing device* ([1.3.22](#)), *self-opening devices* ([1.3.23](#)) and *self-assist opening device* ([1.3.24](#)).

1.3.4 deflection

maximum displacement of a component measured under load at the time specified in the test

Note 1 to entry: The residual or permanent effect of the load or forces applied is deformation.

1.3.5 deformation

permanent change in shape or size due to the application of loads or forces

1.3.6 drawer

box like storage compartment without a lid and made to slide horizontally in and out of a unit with the aid of a runner and fitted with an out-stop

Note 1 to entry: See also *tote* ([1.3.32](#)) and *pencil drawer* ([1.3.16](#)).

1.3.7 durability loading

reiterated application to the unit in a steady and gradual manner, of the load which is likely to occur most frequently

1.3.8 extendible member

flat or near flat shelf-like component that slides in and out of a unit with the aid of a runner and fitted with an out-stop

1.3.9 flap

door hinged at either the top or bottom that is opened by pulling up from the bottom or down from the top

1.3.10 guide

channel or similar in or on which a tote slides for storage and removal from a unit

1.3.11 headroom

an unrestricted space of less than 1 050 mm above the floor of the unit

Note 1 to entry: See also *unrestricted headroom* ([1.3.35](#)).

1.3.12 internal volume

volume of a drawer defined by the size of a box that touches both sides, both ends and a height that just allows the drawer to be closed

1.3.13 lock

device that prevents a latch from opening without a key, code or similar