



# ***Information Kit***

## ***on Testing the Stability of Domestic Furniture based on AS/NZS 4935***

### **1 Introduction**

This document outlines Furntech-AFRDI's certification program based on *AS/NZS 4935:2009 Domestic furniture–Freestanding chests of drawers, wardrobes and bookshelves/bookcases–Determination of stability*.

The objective of the Standard is to assist in reducing the probability of these types of furniture items tipping resulting in possible injury or death (to children in particular<sup>1</sup>).

Specifically the Standard details test methods for determining the stability performance of domestic freestanding chests of drawers and freestanding wardrobes (both when over 500 mm in height), and freestanding bookshelves/bookcases (when over 600 mm in height). Labelling requirements are also specified.

Successful products will be certified under the Furntech Orange Tick program, details of which are outlined in section 5.

A Design Guide comprising a list of simple, qualitative design principles, each conducive to product compliance, is offered in Section 13.

### **2 Ranges/Families of Products**

Items that are the same except for minor cosmetic differences can usually be treated as one product e.g. an item of furniture supplied painted (or stained) in different colours.

However, items with greater degrees of difference cannot be treated as one product and must be evaluated separately. Even subtle design changes can affect stability performance e.g. changing the size of glides or castors.

Please let us know the full range of the products for which certification is sought. This will enable us to formulate the most cost effective testing program for you.

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<sup>1</sup> The overturning masses used are based on the upper 95 percentile child 5 years and 11 months of age.

### 3 Costs

Please contact Furntech-AFRDI for a quotation.

Our quotation will include:

- freight (for the number of items required for evaluation) from your nearest AFRDI freight forwarding depot to Furntech-AFRDI (see section 8).
- Furntech Orange Tick Product Certification for three years.

#### 3.1 Discounts

Furntech-AFRDI members and AFA/FIAA members receive discounts on testing and research fees. Information on membership is available from the Institute or our website ([www.furntech.org.au](http://www.furntech.org.au)). A quantity discount is also available when three or more products (tested to the same requirements) are included at one time.

#### 3.2 Adjustments

In the event that this product fails the assessment or the assessment is terminated at the owner's request, a credit towards future charges, available for a period of 3 years from the date of engagement, will be issued for the unused portion of the assessment fee. If tests have to be repeated further charges are also normally applicable.

### 4 The Next Step

If you are interested in considering product testing, please:

- 1 Read the rest of this information kit. Call or e-mail if there is anything further you would like to discuss (03 6326 6155 or [admin@furntech.org.au](mailto:admin@furntech.org.au)).
- 2 Contact Furntech-AFRDI for a quotation or estimate.

If you wish to proceed with testing on the basis of our quotation, please follow these steps:

- 3 Copy the Testing Request form and complete it for each product. E-mail a copy to Furntech-AFRDI and attach a copy to each sample for which certification is being sought.
- 4 Ensure the items are sent with the appropriate warning labels and swing tags (see section 9).
- 5 Ensure you send the appropriate type and number of samples for evaluation (see sections 2 and 11).
- 6 Deliver the items to our Freight Forwarders or make alternative freight arrangements (see section 8).
- 7 Send your payment to Furntech-AFRDI (we accept cheque, EFT, Visa and MasterCard). Phone 03 6326 6155 or e-mail [admin@furntech.org.au](mailto:admin@furntech.org.au) to request an invoice if this will help to facilitate payment (see section 7).

### 5 Furntech Orange Tick Certification

Furntech Orange Tick certification is granted to suppliers whose products (and organisations) meet the required standard. The Furntech Orange Tick certification program is different from the AFRDI Blue Tick program in that Furntech Orange Tick represents a less complete range of assessment—in this case the requirements of stability, labelling and swing tags (as outlined in AS/NZS 4935:2009). AFRDI Blue Tick, in contrast, typically represents assessment against a broader range of requirements e.g. strength, durability, stability, ignitability, ergonomics, marking and labelling, and general safety.

As with all our certification programmes (AFRDI Blue, Furntech Orange, AFRDI Green or AFRDI Leather Tick) the concept is that for Furntech-AFRDI to endorse (certify) a product, the Institute needs to have an on-going contractual relationship with the supplier that ensures purchasers can rely on certificates of endorsement. Certification involves periodic audits and the investigation of complaints arising from the sale of endorsed products.

Under the Furntech Orange Tick product certification program, suppliers agree to:

- maintain quality of production to at least that of the sample/s tested;
- advise of changes in the product including changes in materials, components and means and place of manufacture **prior** to these changes taking place;
- not use (nor permit its agents to use) the logo to promote goods which are not covered by the agreement or to misrepresent the nature of Furntech-AFRDI's endorsement;
- keep and make available a register of complaints arising from the sale of goods covered by the agreement;
- submit goods for retesting at least every three years or as necessary when standards change;
- agree to random checks of the quality of products covered by the agreement;
- maintain adequate product liability insurance cover; and
- pay a certification fee – three years' fee is included in the testing charge.

In return, Furntech-AFRDI agrees to:

- permit the use of the Furntech Orange Tick product logo to promote goods covered by the agreement; and
- commend goods covered by the agreement in lists published on the Institute's website [www.furntech.org.au](http://www.furntech.org.au).

A copy of the agreement (including any further information on the Furntech Orange Tick Product Certification Scheme) is available on request.

### 6 What You Get

Assuming that the product complies and that you sign a Furntech Orange Tick product certification agreement, at the end of the process Furntech-AFRDI will:

- issue a Test Report and a product certification certificate;
- enter into a product certification agreement with the supplier of the product, or add the product to an existing product certification agreement; and
- add the product to the Furntech-AFRDI list of endorsed products under the Furntech Orange Tick Product Certification Scheme.

### 7 Payment

Furntech-AFRDI policy is that **PAYMENT MUST BE MADE BEFORE TESTING COMMENCES**. Please phone 03 6326 6155 to request an invoice if this will help to facilitate payment. Facilities are available for payment by Visa and MasterCard.

#### 7.1 Adjustments

In the event of failure prior to the completion of testing a credit towards future testing is normally issued for any unexpended part of the testing fee. If tests have to be repeated further charges are also normally applicable.

### 8 Freight

Refer to the Institute's [Information Kit on Freight to Furntech-AFRDI](#). Distribution of this Kit in hardcopy form will include the freight-related information as a supplementary sheet.

### 9 Warning Labels and Swing Tags

Furniture that has passed the stability test requirements of AS/NZS 4935 must be marked with the appropriate warning labels and swing tags before it can be considered to be fully compliant with the standard.

Details are included in Appendix A2 of AS/NZS 4935 which should be consulted directly to ensure that all labels and swing tags are appropriately designed.

### 10 Timing

Freight normally takes between 7 and 14 days and assuming there are no problems, the testing process will typically be complete within a few days of commencement of testing (depending on the number of samples and their assembly requirements).

When the sample/s, the Testing Request form and payment are all received, the item will be placed on the testing schedule.

### 11 Samples

(See also Section 2 for a discussion of product families and ranges)

It's important to select the right products to be sent for physical evaluation. This saves time and also allows the maximum number of products to be certified for the minimum amount of testing. Unfortunately there's often no simple formula that can be applied to help make this selection process an easy one. Consequently the best approach is to send us any descriptive product information you have on the item/s you'd like to have certified (e.g. brochures, technical drawings, photographs etc). Include all items that are clearly different from each other as well as items that are variations on a theme (in some cases these may be able to be included at no, or very little, extra cost). We'll then contact you to let you know what we need to have sent.

### 12 Confidentiality

Testing conducted at Furntech-AFRDI is absolutely confidential. The Institute's procedures prohibit the disclosure of the fact that an item is being tested (and the results of any such testing) without the written permission of the client.

To assist us to preserve the confidentiality of other customers, we request three working days notice of an intended visit to the Institute's laboratory.

### 13 Design Guide

Following is a list of simple design principles, each conducive—*qualitatively*—to product compliance:

- Other things being equal the heavier a furniture item is, the better.
- An item of furniture with a big 'footprint' is better than the same item with a smaller one. By 'footprint' it is meant the area enclosed by a line drawn around the furniture's feet or supports e.g. its glides, slides, castors etc (see figure 1 below). The depth of the footprint is more important than its width.
- The height of the item is not important<sup>2</sup>.
- Weight distributed toward the rear is better than towards the front of the item.
- Lighter drawers and doors will normally be better than heavier ones<sup>3</sup>.
- A smaller drawer extension is better than a larger one.

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<sup>2</sup> This is true from the point of view of testing (as testing is performed on a flat, level and hard surface). In practice, where floors may be sloping and/or carpeted these features may produce more pronounced instability effects on relatively tall items of furniture.

<sup>3</sup> This is based on the assumption that when they are opened to 2/3 of their extension length (in the case of drawers), or to perpendicular (in the case of doors), their centre of mass will have moved to a point outside the furniture item's footprint.

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- All drawers (other than 'minor fittings') should be designed with sufficient strength to hold at least 30 kg of vertical load when 2/3 extended.
- All doors should be designed with sufficient strength to hold at least 30 kg of vertical load when opened to perpendicular.

In addition to the above, another worthwhile design principle is to attempt to design furniture with its weight distributed as close to the floor as possible. While this won't help in meeting the requirements of this standard, in practice it means an item has to tip further before its overturning becomes self-perpetuating, thus giving a climbing child more time to let go and allow the furniture to return naturally to its upright position.

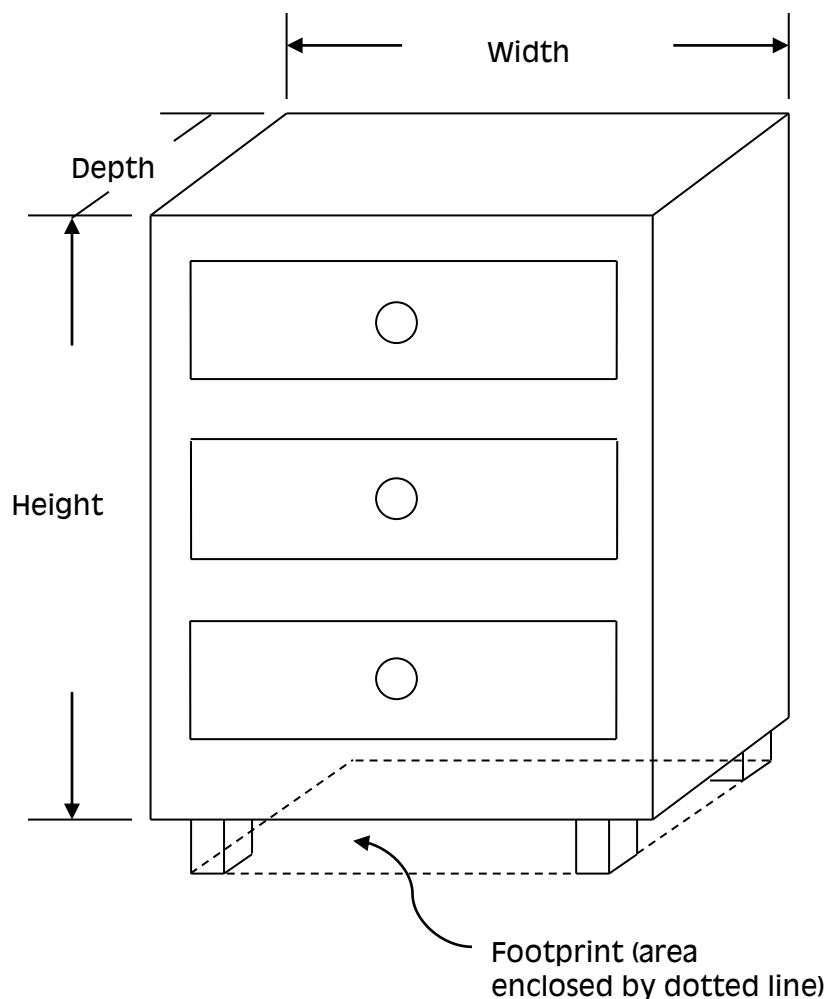


Figure 1

# Furntech-AFRDI Testing Information Kit – Stability of Furniture

## Testing Request – Stability

Please complete for **each model** to be tested and **email** ([admin@furntech.org.au](mailto:admin@furntech.org.au)) one copy and attach another to the sample before dispatch.

**All fields must be completed.**

ORGANISATION: .....

PRIMARY CONTACT: (*Who do we contact during testing?*) .....

STREET ADDRESS: .....

.....P/CODE:.....

TEL: ..... FAX:.....

WEB:.....

EMAIL:.....ABN:.....

FACTORY NAME:.....

FACTORY ADDRESS: .....

.....COUNTRY:.....P/CODE:.....

### Product Description

DESCRIPTION/MODEL NAME/NUMBER: (**PRINT** the name you wish to appear on the certificate)

.....

TEST REQUIRED: AS/NZS 4935

PROTOTYPE\*  PRODUCTION SAMPLE

**\*NOTE: No certificate will be issued for a prototype, and it therefore will not appear on the Furntech-AFRDI Webpage. After prototype testing, a further *production sample* will need to be submitted for full testing at *additional cost* before the product is certified.**

### Authorisations and Declaration

**I warrant and declare** that the information provided is accurate in every detail.

**I authorise** Furntech-AFRDI or its agents to carry out tests at the quoted price.

Signature of authorised officer: .....

Name (**PRINT**) .....

Position in company: ..... Date: .....

Test sample(s) will not normally be returned. If you do want them returned, please indicate here (note extra freight charges will apply):

YES

Any significant issues pending/impending with product (e.g. field failures, claims, recalls)?

YES  (if yes, please attach summary) NO

**OPTIONAL:** Should the product(s) described above be certified by Furntech-AFRDI, I authorise Furntech-AFRDI to list the compliance certificate on its website.

YES  NO

Published by Furntech-AFRDI, the Australasian Furnishing Research and Development Institute, an independent not-for-profit technical organisation serving furniture buyers and sellers in Australia and New Zealand.

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