

Australian/New Zealand Standard®

Domestic kitchen assemblies—Methods of test

Method 5: Determination of strength of hinged doors

1 SCOPE This Standard sets out the procedure for determining the strength of hinged doors of a kitchen unit.

2 PRINCIPLE The storage parts of the unit to be tested are fully loaded with weights and a force is applied to the hinged door in order to determine the hinged door strength.

3 APPARATUS The following apparatus is required:

- (a) *Weights*—to provide a load that will not reinforce the unit or redistribute the load, e.g. metal bars or lead shot in bags.

NOTE: If metal bars are used the front row shall be aligned with the front edge of the surface. If lead shot in bags is used, the bags should be divided into small compartments to prevent the contents moving during testing.

- (b) *Braided nylon cord*—approximately 2 m long.

4 PROCEDURE The procedure is as follows:

- (a) Load all the storage parts of the unit with weights to the appropriate mass as specified in Table 1.
- (b) Before the test load is applied to the door, check the appearance and function of the door and measure its position.
- (c) Attach a mass of 37.5 kg to the door in such a way that its mass is equally distributed on both sides of the door and so that its centre of gravity acts 100 mm from the handle edge of the door (see Figure 1).

- (d) Swing the door gently 10 full cycles (back and forth) from a position 45° from fully closed to a position 10° from fully opened, but to a maximum of 135°.

NOTE: Opening and closing can be done by hand using between 3 seconds and 5 seconds for opening and between 3 seconds and 5 seconds for closing.

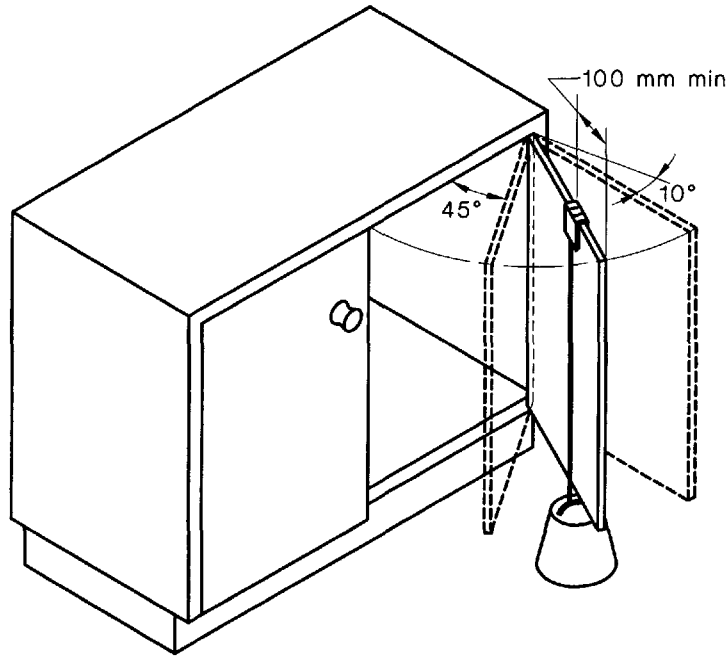
- (e) Remove the test load.
- (f) After the test load has been removed measure any displacement of the door, then re-tighten the hinge screws, adjust the hinges if possible and re-check the appearance and function of the door.
- (g) A unit or component shall record a pass if, at the completion of the test, none of the following defects affects the strength or function of the unit or component:
- (i) Fracturing of any member, joint or component.
 - (ii) Any loosening of joints intended to be rigid.
 - (iii) Deformation or wear of any component.
 - (iv) Loosening of any components fixed to the unit.

TABLE 1
LOADS APPLIED TO PARTS OTHER
THAN THE PART BEING TESTED

Part	Load	
	kg/m ²	kg/m ³
Wall unit shelf Floor unit shelf Pantry shelf	66	—
Cutlery drawer	—	330
All other drawers Basket	—	250

NOTES:

- 1 The area of shelves is calculated by including any space between the back of the shelf and the inside face of the back panel or, where no back panel is fitted, the rear edge of the end panel of the unit.
- 2 Where there are part-width shelves, the load applicable to the area between the front of the shelf and the inside surface of the door should be transferred to the same area of the full-width horizontal surface immediately below.
- 3 Internal volume is equal to the area of drawer bottom times the maximum height free of obstruction.



DIMENSIONS IN MILLIMETRES

FIGURE 1 STRENGTH OF HINGED DOORS