

Australian/New Zealand Standard®

Domestic kitchen assemblies—Methods of test

Method 2: Determination of shelf deflection

1 SCOPE This Standard sets out the procedure for measuring shelf deflection of a loaded kitchen unit.

2 PRINCIPLE All the storage parts of the unit to be tested are fully loaded and the deflection of the shelf is measured after one week.

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) *Measuring instrument*—for measuring dimensions to an accuracy of ± 0.2 mm.

4 PROCEDURE The procedure is as follows:

- (a) Measure and record the span and the deflection (if any) of the shelf in millimetres at whichever points are most likely to deflect.

NOTE: Deflection can occur between any two supports including any centre supports; also at the end of a cantilevered shelf.

- (b) Load all the storage parts of the unit, including the shelf to be tested, with weights to the appropriate mass specified in Table 1.
- (c) After one week, measure and record the deflection of the loaded shelf.
- (d) A pass shall be recorded if the deflection after testing is not greater than $\text{span}/180$.

TABLE 1
LOADS APPLIED TO PARTS
UNDERGOING TEST

Part	Loads and cycles		
	kg/m ²	kg/m ³	cycles
Wall unit shelf Floor unit shelf Pantry shelf	75	—	—
Cutlery drawer	—	400	100 000
All other drawers	—	330	50 000
Basket	—	330	25 000

5 TEST REPORT The following shall be reported:

- (a) Reference to this Joint Australian/New Zealand Standard (i.e. AS/NZS 4387.2).
- (b) A detailed description of the unit or component tested, including the manufacturer's product reference;
- (c) The method of test and the test level to which the unit or component has been tested.
- (d) Details of any defects observed before the test.
- (e) Details of any defects observed after the test affecting the strength or function of the unit or component, for example—
 - (i) fracturing of any member, joint or component;
 - (ii) permanent loosening of joints intended to be rigid, shown by hand pressure applied to suitable members;
 - (iii) deformation or wear of any component that will essentially affect its function;
 - (iv) loosening of any means of fixing components to the article; or
 - (v) moveable parts that do not open or close freely, or catches that do not operate smoothly.
- (f) If required, the magnitude of any non-standard forces used.
- (g) Details of any deviation from the test procedure.
- (h) The test result, pass or fail.
- (i) Name of the laboratory or authority which performed the test.
- (j) The date on which the test was carried out.
- (k) Reference to a calibration certificate for the apparatus used, the calibration authority and the expiry date of the certificate.