



# TEST REPORT

**LAB LOCATION:** VIETNAM  
**DATE IN:** May. 03, 2019

**REPORT NUMBER:** 76119-050049  
**DATE OUT:** May. 14, 2019

<b>Applicant:</b>	Dorel Home Products.		
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<b>Copy To:</b>			

<b><u>OVERALL RATING</u></b>	
PASS	<u>X</u>
FAIL	<u>-</u>
DATA	<u>-</u>

<b>Sample Information</b>			
<b>Sample Description</b>	Franklin Table collection		
<b>Style Number</b>	5062096PCOMUK, 5062196PCOMUK, 5062296PCOMUK, 5062296COMUK, 5062396COMUK, 5062496COMUK, 5062596COMUK, 5062696COMUK and 5062796COMUK		
<b>Quantity</b>	1 samples	<b>PO Number</b>	TBA
<b>Buyer's Name</b>	-	<b>Manufacturer</b>	Nhat Nam Joint Stock Company
<b>Country of Origin</b>	Viet nam	<b>Country of Destination</b>	EU
<b>Code Number</b>	-	<b>Dept/Key#</b>	-
<b>Reference item/ style number</b>	-	<b>Color</b>	-
<b>Testing Status</b>			
<b>Pre-Shipment Lead Test</b>	<input type="checkbox"/>	<b>Test for Protocol</b>	-
<b>Retest</b>	<input type="checkbox"/>	<b>Previous Report No.:</b> -	

Sample Photos



**76119-050049**

For and on behalf of  
**Modern Testing Services (Vietnam) Ltd.**



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**JAMES NGUYEN**  
**HL. DEPARTMENT MANAGER**



# TEST REPORT

**EXECUTIVE SUMMARY:**

<b>TESTING RESULT SUMMARY</b>				
<b>Test Property</b>	<b>PASS</b>	<b>FAIL</b>	<b>DATA</b>	<b>COMMENTS</b>
BS EN 4875-7: 2006 Strength and Stability of Furniture Part 7: Domestic and contract storage Furniture – Performance requirements	X	-	-	-
BS EN 14749: 2016 Domestic And Kitchen Storage Units & Worktops Safety Requirements & Test Methods	X	-	-	-

**Test Result:**

**BS EN 4875-7: 2006**  
**Strength and Stability of Furniture Part 7: Domestic and contract storage Furniture – Performance requirements**

**Sample description:** Franklin Table collection

**Conclusion: PASS/ FAIL / OTHER:**       **PASS**      

■ **Sample information:**

<b>Number of test sample</b>	:	1 Piece(s)
<b>Overall Dimension</b>	:	Length: 56 cm x Width 39.5 cm x Height 72 cm
<b>Net Weight</b>	:	14.2 kg
<b>Test level</b>	:	3

<b>Top surface</b>	L 56 cm x W 39.5 cm		
<b>Bottom surface</b>	L / cm x W / cm	<b>Worktops</b>	L / cm x W / cm
<b>Number of shelves</b>	1 shelf(ves)		
<input checked="" type="checkbox"/> <b>Shelf 1<sup>st</sup></b>	L 48 cm x W 32.5 cm	<input type="checkbox"/> <b>Shelf 4<sup>th</sup></b>	L / cm x W / cm
<input type="checkbox"/> <b>Shelf 2<sup>nd</sup></b>	L / cm x W / cm	<input type="checkbox"/> <b>Shelf 5<sup>th</sup></b>	L / cm x W / cm
<input type="checkbox"/> <b>Shelf 3<sup>rd</sup></b>	L / cm x W / cm	<input type="checkbox"/> <b>Shelf 6<sup>th</sup></b>	L / cm x W / cm
<b>Number of drawer</b>	2 drawer(s)		
<input checked="" type="checkbox"/> <b>Drawer 1<sup>st</sup></b>	L 39 cm x W 27.5 cm x H 8.5 cm	<input type="checkbox"/> <b>Drawer 4<sup>th</sup></b>	L / cm x W / cm x H / cm
<input checked="" type="checkbox"/> <b>Drawer 2<sup>nd</sup></b>	L 39 cm x W 27.5 cm x H 9 cm	<input type="checkbox"/> <b>Drawer 5<sup>th</sup></b>	L / cm x W / cm x H / cm
<input type="checkbox"/> <b>Drawer 3<sup>rd</sup></b>	L / cm x W / cm x H / cm	<input type="checkbox"/> <b>Drawer 6<sup>th</sup></b>	L / cm x W / cm x H / cm

Clauses	Test Methods / Requirements	Results
<b>BSEN 4875-7:2006 Clause 4 Requirements</b>	<p>After the item of furniture has been tested in accordance with Clause 5, at the selected test level, none of the following shall have occurred:</p> <ul style="list-style-type: none"> <li>a) any fracture of any member, joint or component, including castors;</li> <li>b) any loosening, shown to be permanent by hand pressure applied to suitable members, of joints intended to be rigid;</li> <li>c) any deformation or wear of any component that will affect its function;</li> <li>d) any loosening of any means of fixing components to the article;</li> <li>e) any changes that prevent movable parts opening or closing freely or that cause movable parts, other than drawers, to require application of a force in excess of 100 N for operation;</li> <li>f) any deflection of shelves or tops greater than span/200 for particle board, span/50 for wood or span/100 for other materials;</li> <li>g) any deflection of clothes rails greater than span/100;</li> <li>h) any force required to move drawers in excess of 70 N and any force required to maintain movement in excess of 45 N.</li> </ul>	<b>Test results see Error! Reference source not found.</b>
<b>BSEN 4875-7:2006</b>	<b>Testing level &amp; parameter</b>	See <a href="#">Table 1</a>
<b>BSEN 4875-7:2006</b>	<b>Loads in storage components during testing</b>	See <a href="#">Table 2</a>

**Table 1: Test Level & Parameter:**

Test (Clause in ISO 7170:2005)	Test description	Loading	Test level				
			1	2	3	4	5
6.2.2	Static load test for tops and bottoms	Force, N; 10 times	—	600	750	1 000	1 250
6.2.1	Sustained load test for tops and bottoms	Mass, kg/dm <sup>2</sup>	1.0	1.0	1.5	2.0	2.5
6.1.4	Strength of shelf supports	See ISO 7170:2005, 6.1.4, and Table 3					
6.1.3	Deflection of shelves	Mass, kg/dm <sup>2</sup>	1.0	1.0	1.5	2.0	2.5
6.3.1	Strength of clothes rail supports	Mass, kg/dm; 1 h	4.0	4.0	4.0	4.0	4.0
6.3.2	Dislodgement of clothes rails	Mass, kg/dm	4.0	4.0	4.0	4.0	4.0
7.1.2.1	Vertical load on pivoted doors	Mass, kg; 10 cycles	10	15	25	30	45
7.1.2.2	Horizontal load on pivoted doors	Force, N; 10 times	—	50	60	70	80
7.2.3	Durability of sliding doors and horizontal roll fronts	Cycles	10 000	20 000	40 000	80 000	160 000
7.1.3	Slam shut test of pivoted doors	Mass, m <sub>2</sub> , kg; 10 times	2	2	3	4	6
7.1.4	Durability of pivoted doors	Cycles	10 000	20 000	40 000	80 000	160 000
7.2.2	Slam shut/open of sliding doors and horizontal roll fronts	Mass, m <sub>2</sub> , kg; 10 times	2	2	3	4	6
7.3.1	Strength of bottom-hinged flaps	Force, N; 10 times	50	100	200	300	500
7.3.2	Durability of flaps	Cycles	5 000	10 000	20 000	40 000	80 000
7.3.3	Drop test for top-hinged flaps	Cycles	—	100	150	200	250
7.4.2	Durability of vertical roll fronts	Cycles	2 500	5 000	10 000	20 000	40 000
7.4.1	Slam shut/open of vertical roll fronts	Mass, m <sub>2</sub> , kg; 10 times	2	2	3	4	6
7.5.2	Strength of extension elements	Force, N; 10 times	100	150	250	300	450
7.5.3	Durability of extension elements	Cycles	10 000	20 000	40 000	80 000	160 000
7.5.4	Slam open/shut test of extension elements	Velocity, m/s, at calibration points Slam open 5 kg Slam shut 35 kg	1.25 0.80	1.45 0.95	1.65 1.10	1.85 1.25	2.05 1.40
7.5.5	Displacement of extension element bottoms	Force, N; 10 times	30	40	60	70	80
7.5.6	Interlock test	Force, N; 10 times	200	200	200	200	200
7.6.2	Strength test for locking and latching mechanisms for extension elements	Force, N; 10 times	200	200	200	200	200

Table 1 Tests (continued)

Test (Clause in ISO 7170:2005)	Test description	Loading	Test level				
			1	2	3	4	5
7.6.3	Strength test for locking and latching mechanisms for doors, flaps and roll fronts	Force, N; 10 times	200	200	200	200	200
6.4.1	Test for structure and underframe	Force, N; 10 times	150	250	300	450	600
6.4.3	Test for units with castors or wheels	Cycles	—	500	500	1 000	2 000
8.1.3	Sustained load test	Mass, kg/dm <sup>2</sup>	1.0	1.0	1.5	2.0	2.5
8.1.4	Dislodgement test	Force, N	200	200	200	200	200

Table 2 Loads in storage components during testing

Component	Load	Test level				
		1	2	3	4	5
Door baskets	kg/dm <sup>2</sup>	1.0	1.0	1.5	2.0	2.5
Extension elements <sup>A)</sup>	kg/dm <sup>3</sup>	0.25	0.25	0.33	0.65	0.8
Suspended pocket files	kg/dm	2.5	2.5	2.5	2.5	2.5

<sup>A)</sup> The volume of extension elements is calculated from the internal depth × internal width × internal clear height.

Table 3 Steel impact plates

Test level	Mass kg	Approximate width mm	Approximate thickness mm	Length mm	Impact energy J
1	0.5	32	10	200	0.49
2	0.75	48	10	200	0.74
3	1.1	70	10	200	1.08
4	1.7	109	10	200	1.66
5	2.5	160	10	200	2.45

## Appendix 1: BSEN 4875–7:2006 - Strength and Stability of Furniture – Part 7 : Domestic and contract storage Furniture – Performance requirements

Test Items	Test Requirements	Test Results
ISO 7170:2005 6.2.2 Static load test for tops and bottoms	Apply a vertical downwards force of <u>750N</u> 10 times at any position likely to cause failure but not less than 50 mm from the edges.	<b>P</b>
ISO 7170:2005 6.2.1 Sustained load test for tops and bottoms	Load the top or bottom uniformly with the load of <u>1.5</u> kg/dm <sup>2</sup> and apply for: — one hour for tops and bottoms made of metal, glass and stone; ✓ one week for all other tops and bottoms. Measure and record the deflection under load as specified above.	<b>P</b>  Test load: 33.2 Kgs
ISO 7170:2005 6.1.4 Strength of shelf supports	Load the shelf uniformly with half the load specified for 6.1.3, except at 220 mm from one support, where the impact plate shall be tipped over 10 times over the support. All supports of the shelf shall be tested.	<b>P</b>
ISO 7170:2005 6.1.3 Deflection of shelves	Load the shelf uniformly with the load of <u>1.5</u> kg/dm <sup>2</sup> and apply for: — one hour for shelves made of metal, glass and stone; ✓ one week for all other shelves. measure and record the deflection under load	<b>P</b>  Test Load: 23.4 Kgs
ISO 7170:2005 6.3.1 Strength of clothes rail supports	Place the rail on its supports in the unit. Apply the load of _____ kg/dm as close as possible to the weakest support	<b>NA</b>
ISO 7170:2005 6.3.2 Dislodgement of clothes rails	Load the rail uniformly with the load of _____ kg/dm and apply for: — one hour for metal rails; — one week for all other rails.	<b>NA</b>
ISO 7170:2005 7.1.2.1 Vertical load on pivoted doors	Load the door with the mass of _____ kg. The mass shall be suspended from the edge furthest from the hinge.  Open and close the door 10 full cycles (back and forth) from a position 45° from fully closed to a position 10° from fully opened, up to a maximum of 135° from the fully-closed position.	<b>NA</b>
ISO 7170:2005 7.1.2.2 Horizontal load on pivoted doors	Apply the horizontal static load of _____ N perpendicular to the plane of the door on its horizontal centerline, 100mm from the edge furthest from the hinge.  Carry out the test 10 times.	<b>NA</b>

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Test Items	Test Requirements	Test Results
ISO 7170:2005 7.2.3 Durability of sliding doors and horizontal roll fronts	<p>Open and close the door/roll-front for the number of _____ cycles. The movement shall be 50 mm from the fully closed position, without forcing the stops, to a position approximately from the fully open position.</p> <p>The door shall be opened/ closed gently at a rate of 6 to 15 cycles per minute.</p> <p>If the door/roll-front has a catch device at any position, operate this at each cycle.</p>	<b>NA</b>
ISO 7170:2005 7.1.3 Slam shut test of pivoted doors	<p>Determine the mass, m1, required to just move the door. The test mass shall be m1+m2. m2=_____ kg.</p> <p>Slam shut the door 10 times using the masses (m1+m2).</p> <p>The test mass shall act until before the door is fully closed. The mass shall fall through a distance of 300mm or the distance required closing the door through, whichever is the smaller.</p>	<b>NA</b>
ISO 7170:2005 7.1.4 Durability of pivoted doors	<p>Attach two masses, 1kg each, and one on each side of the door at the middle of the vertical centerline.</p> <p>Fully open the door to a maximum of 130° and close it for the number of _____cycles (back and forth) without forcing built-in stops in the open position.</p> <p>If the door has a catch device at any position, operate this mechanism at each cycle.</p> <p>The door shall be gently opened and closed at each cycle using approximately 3s for opening and 3s for closing the door.</p>	<b>NA</b>
ISO 7170:2005 7.2.2 Slam shut/open of sliding doors and horizontal roll fronts	<p>Determine the mass, m1, required to just move the door. The test mass shall be m1+m2. m2=_____ kg.</p> <p>Slam shut the door 10 times using the masses (m1+m2).</p> <p>The mass shall fall through a distance of 300mm from the closed/opened positions respectively. The test mass shall act until 10mm before the door/roll-front is fully closed/opened.</p>	<b>NA</b>
ISO 7170:2005 7.3.1 Strength of bottom-hinged flaps	<p>With the flap in its fully opened/extended position, load with the static force of _____N. Apply the force 10 times, 50mm from the weakest corner</p>	<b>NA</b>
ISO 7170:2005 7.3.2 Durability of flaps	<p>Open/close the flap for the number of _____cycles. Use approximately 3s for opening respectively and 3s for closing the flap.</p> <p>If the flap has a catch device at any position, this shall be allowed to operate at each cycle.</p> <p>Self-locking stays shall be opened until just before they lock and then closed from that position.</p>	<b>NA</b>

Test Items	Test Requirements	Test Results
ISO 7170:2005 7.3.3 Drop test for top-hinged flaps	Lift the door/flap until it is horizontal and allow it to drop freely for the number of _____cycles	<b>NA</b>
ISO 7170:2005 7.4.2 Durability of vertical roll fronts	By means of a force applied on the vertical centerline, open and close the roll-front fully and gently at a rate of 6 to 15 cycles per minute for the number of _____ cycles.	<b>NA</b>
ISO 7170:2005 7.4.1 Slam shut/open of vertical roll fronts	Allow the roll-front to fall freely in both directions from as near the point of equilibrium as possible for the number of 10 cycles. If the roll-front does not fall, the test shall be carried out according to the same principle as specified in 7.2.2 with the force applied on the vertical centerline.	<b>NA</b>
ISO 7170:2005 7.5.2 Strength of extension elements	Open the extension element to its open stops, or if there are no open stops, to the point at which one-third of the inside length (depth) of the extension element, or at least 100mm, remains inside the unit.  Apply the vertical downwards static force of __250__N on one top corner of the extension element front.  Repeat 10 times.	<b>P</b>
ISO 7170:2005 7.5.3 Durability of extension elements	Load the extension element as specified.  Without impacting the stops, or providing vertical support, open and close the extension element gently for the number of __40,000__cycles. Extension elements that do not have open stops shall be opened to a point at which one-third of the inside length (depth) of the extension element, or at least 100mm, remains inside the unit.  If the extension element has a catch device at any position, this shall be allowed to operate at each cycle.  The extension element shall be opened/ closed gently at a rate of 6 to 15 cycles per minute.	<b>P</b>
ISO 7170:2005 7.5.4 Slam open/shut test of extension elements	Place the extension element on its runners and load it as specified.  Open the extension element 300mm, or fully open it if it cannot be opened 300mm. Extension elements without stops in the open position shall be opened until remains inside the unit.  Slam shut the extension element 10 times using the velocities specified.	<b>P</b>
ISO 7170:2005 7.5.5 Displacement of extension element bottoms	Place the extension element on its runners or suspend it in a similar way, and load it.  Apply a static force of __60__N approximately 25mm above the bottom of the extension element, acting at the middle of the front and back of the extension.	<b>P</b>

Test Items	Test Requirements	Test Results
	Apply the force 10 times.	
ISO 7170:2005 7.5.6 Interlock test	When interlocks are fitted, one extension element shall be fully extended and an outwards force of _____N shall be applied to the handles of each of the remaining extension elements one at a time. The test shall be carried out a total of 10 times on each extension element.  Record if the extension elements remain closed.	<b>NA</b>
ISO 7170:2005 7.6.2 Strength test for locking and latching mechanisms for extension elements	Apply a force of _____N in the direction of travel of the extension element at a direction 90° to the front of the element and at 30° to that direction, upwards, downwards, to the left and to the right.  Repeat the test 10 times for each extension element.	<b>NA</b>
ISO 7170:2005 7.6.3 Strength test for locking and latching mechanisms for doors, flaps and roll fronts	Apply a force of _____N in the direction of travel of the door/flap/roll-front and at 30° to that direction, upwards and downwards.  Repeat the test 10 times for each door.	<b>NA</b>
ISO 7170:2005 6.4.1 Test for structure and under frame	Place stops around the legs or base  Load all parts intended for storage. Close extension elements, flaps, roll-fronts and doors.  Apply the static force of <u>300</u> N 10 times at point A on the centre line of the side of the unit as high as possible but not higher than 1600mm from the floor.  Repeat this procedure 10 times at points B, C and D, with the legs or base still restrained by stops.	<b>P</b>
ISO 7170:2005 6.4.3 Test for units with castors or wheels	Apply the force at the same point as in 6.4.1, on the centre line of the side of the unit as high as possible but not higher than 1600mm from the floor.  Move the unit (600 ± 20) mm back and forth at a rate of (10 ± 2) cycles per minute for _____ cycles. One cycle consists of a forward and a backward stroke.  Inspect the castors and the structure for damage, which could affect functioning, immediately after testing and after a recovery period of 24h.	<b>NA</b>

<p>ISO 7170:2005 8.1.3 Sustained load test</p>	<p>Load all the storage areas with the specified load of _____ kg/dm<sup>2</sup> according to the following principle.</p> <p>If the number of shelves is not determined by the structure of the unit(s) or specified in a requirement document, divide the internal height of the unit(s), expressed in millimeters, by 200 and take the lower integer. This number shall then be the number of shelves to be used during testing.</p> <ul style="list-style-type: none"> <li>- Load on bottom: Specified load</li> <li>- Load on first shelf: Specified load×0,6</li> <li>- Load on second shelf: Specified load×0,4</li> <li>- Load on third and following shelves: Specified load×0,25</li> <li>- Load on top surfaces: Specified load×0,2</li> </ul> <p>If the volume of the unit, calculated by the inner width, depth and height, is greater than 0,225 m<sup>3</sup>, the total load shall be multiplied by the factor R.</p> <p>The unit shall be loaded for one week.</p> <p>Check whether the unit remains attached to the structure and carries the test load.</p>	<p><b>NA</b></p>
<p>ISO 7170:2005 8.1.4 Dislodgement test</p>	<p>Assemble the units according to the manufacturer's instructions. Apply to the unloaded unit the vertical upwards force of _____N at the least favorable point of the front edge.</p>	<p><b>NA</b></p>



- **Loading**

During all tests, all components intended for storage purposes shall be uniformly loaded according to **Table 1**, except where otherwise specified.

### 5.1 Principles of safety requirements

#### 5.1.1 General

The safety requirements are based upon the knowledge that kitchen units, bathroom units and domestic storage furniture and their components are likely to cause serious injury only when they are heavy and fall through a significant distance. This is possible if floor standing units overturn, wall or screen hanging units become detached, or heavy components become detached from units.

#### 5.1.2 Determination of centre of gravity

The centre of gravity above the floor (for floor standing units) shall be measured when installed according to the manufacturer's instructions. Levelling devices shall be set at their middle position.

Height adjustable components shall be placed in their highest position.

The centre of gravity of a component or unit shall be taken as the geometric centre of that unit, except in the case of extension elements, where the geometric centre of the usable volume shall be used.

All wall hanging units or top hanging units or components thereof are considered to have their centre of gravity more than 900 mm above the floor.

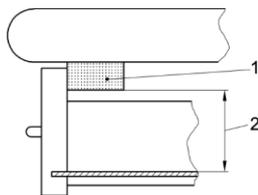
#### 5.1.3 Determination of total mass

The total mass is the mass of the component or unit plus the mass determined according to Table 1, unless the unit or component is conspicuously and durably marked by the manufacturer with a maximum load, in which case the unit or component shall be loaded with the stated maximum load multiplied by 1,2. The volume of fixed baskets shall be taken as the volume contained below their top edge.

The volume of extension elements shall be taken as the area of its bottom multiplied by the clear height (Figure 1).

**Table 1 — Loads**

Component	Load
All horizontal storage areas, including shelves, bottoms, tops and bottom hinged flaps	0,65 kg/dm <sup>2</sup>
Extension elements and fixed baskets	0,2 kg/dm <sup>3</sup>
Clothes rails	4,0 kg/dm
Suspended filing pockets	2,5 kg/dm <sup>a</sup>
Storage area/-volume (3.10) for heavy appliances (e.g. refrigerator, washing machine) <sup>b</sup>	0,5 kg/dm <sup>3 c</sup>
<p><sup>a</sup> Measured perpendicular to the plane of the filing pockets.</p> <p><sup>b</sup> Other heavy objects, e.g. aquariums are not covered by this value.</p> <p><sup>c</sup> Max. load 200 kg per unit.</p>	



**Key**  
1 Structure of the unit  
2 Clear height

Figure 1 — Clear height

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**Table 2 — Loads for stability testing**

Component	Load
All horizontal storage areas, including shelves, bottoms, tops and flaps	0,325 kg/dm <sup>2</sup>
Extension elements and baskets with internal height, $H, \leq 1$ dm	0,2 kg/dm <sup>3</sup>
Extension elements and baskets with internal height, $H$ , between 1 dm and 2,5 dm	$(0,2667 - 0,0667H)$ kg/dm <sup>3</sup> ( $H$ in dm)
Extension elements and baskets with internal height, $H, \geq 2,5$ dm clear height	0,1 kg/dm <sup>3</sup>
Hanging rails	2 kg/dm
Suspended filing pockets	1,25 kg/dm

**Table 3 — Stability requirements**

Test No.	Test	Reference in EN 16122:2012	Loading	Test parameter
5.4.1.1	Doors, extension elements and flaps closed, all storage units unloaded - Units that are, or can be, adjusted to a height of 1 000 mm or less	11.2.1	Vertical force, N	750
5.4.1.2	Doors, extension elements and flaps closed, all storage units unloaded - Units that are, or can be, adjusted to a height of more than 1 000 mm	11.2.2	Vertical force, N Outward horizontal force resulting in an overturning moment, Nm	350 50
5.4.1.3	All storage areas unloaded and all doors, extension elements and flaps open	11.4.1	-	-
5.4.1.4	All storage areas unloaded, with overturning load	11.4.2	Vertical force, N	75
5.4.1.5	All storage areas loaded, with overturning load	11.4.3	Vertical force, N	20 % of mass of the unit loaded according to Table 2 but not greater than 300 N
5.4.1.6	Doors, extension elements and flaps closed and locked	11.5	Outward horizontal force, N	100

Test Item	Test Requirement	Result
<b>5.2 General safety requirements</b>		
5.2.1 General	<p>The following requirements apply to all units and components.</p> <p>Components with which the user can come into contact during normal use shall have no burrs and/or sharp edges, nor shall there be any open-ended tubes.</p> <p>All movable components accessible during normal use shall have safety distances in any position during movement of <math>\leq 8</math> mm or <math>\geq 25</math> mm. This applies to any components moving relatively to each other, with the exception of doors, flaps and extension elements including their hardware. The safety distances also apply to the distance between handles/handgrips and other components.</p>	<b>P</b>
5.2.2 Units moving vertically	In order to avoid pinching points for feet, the safety height for units moving vertically shall be at least 100 mm from the floor.	<b>NA</b>
5.2.3 Lids	<p>In order to prevent children's heads and necks from being entrapped by hinged lids of storage units horizontal lids that are</p> <p>1000 mm or less from the floor and weigh 0,25 kg or more, shall be provided with lid-support mechanisms to prevent sudden collapse or dropping of the lid.</p> <p>The lid-support mechanism shall support the lid so that at no position in the arc of travel of the lid from within 50 mm of the fully closed position through an arc not to exceed 60° from the fully closed position shall it drop more than 12 mm under the influence of its own mass, except in the last 50 mm of travel.</p> <p>The test shall be carried out in accordance with EN 71-1:2014, 8.31.2. In the case of adjustable mechanisms, product information shall be given for the correct adjustment.</p>	<b>NA</b>
5.2.4 Vertically moving roll fronts and vertically moving sliding doors	All roll fronts and doors sliding vertically including those constructed from hinged components shall not move by themselves from any position higher than 200 mm measured from the closed position.	<b>NA</b>
5.2.5 Extension elements	All extension elements whose total mass (according to 5.1.3) exceeds 10 kg but where safety tests are not required shall have effective open stops, <i>i.e.</i> they shall resist being pulled out of the unit once by a horizontal force of 200 N applied to the handle of the loaded extension element (according to <b>Table 1</b> ), or they shall be supplied with product information to this effect.	<b>NA</b>
<b>5.3 Structural safety requirements</b>		

Test Item	Test Requirement	Result
5.3.1 General	<p><i>The tests and requirements in 5.3.2 to 5.3.9 apply to any component only when:</i></p> <ul style="list-style-type: none"> <li><i>— the height to the centre of gravity of the component is &gt; 900 mm above the floor and the total mass (5.1.3) is <math>\geq 10</math> kg; or</i></li> <li><i>— the height to the centre of gravity of the component is &gt; 350 mm and the total mass (5.1.3) is <math>\geq 35</math> kg.</i></li> </ul> <p><i>Where specified in EN 16122, storage units and their components shall be loaded in accordance with <a href="#">Table 1</a>.</i></p> <p><i>Unless otherwise specified, all storage components, which are not subject to testing, shall be uniformly loaded with the specified load(s).</i></p> <p><i>When the unit or component is conspicuously and durably marked by the manufacturer with a maximum load, the unit or component shall be loaded with the stated maximum load multiplied by 1,2. Details on testing and application of safety requirements can be found in Annex B (informative).</i></p>	
<b>5.3.2 Shelves</b>		
5.3.2.1 Shelf retention – vertical downward	Unloaded shelves shall not fall down when tested according to EN 16122:2012, 6.1.3 with a downwards vertical force of 100 N.	<b>P</b>
5.3.2.2 Shelf retention – horizontal outward	Unloaded shelves shall not fall down when tested according to EN 16122:2012, 6.1.2 with a force representing 50 % of the weight of the unloaded shelf.	<b>P</b>
5.3.3 Shelf supports	<p>If the clear height is less than 200 mm the test is not carried out.</p> <p>This test shall be carried out according to EN 16122:2012, 6.1.5 with impact plate No. One on all horizontal surfaces e.g. shelves, tops and bottoms that can be used as storage area. The horizontal surface shall be loaded according to <a href="#">Table 1</a>.</p> <p>In case of identical shelf supports and horizontal surfaces only one test shall be carried out.</p> <p>After the test, the horizontal surface and the shelf supports shall show no fracture or other damage that can affect the safety.</p>	<b>P</b>
5.3.4 Storage area/-volume for heavy appliances	<p>This requirement is only applicable to units with shelves which are designed to carry heavy appliances, e.g. refrigerator, washing machine.</p> <p>In derogation to EN 16122:2012, 6.2.1 the test shall be carried out on all shelves, tops or bottoms which are intended to carry heavy appliances irrespective of the height above the floor.</p> <p>The test shall be carried out for one week according to EN 16122: 2012, 6.2.1 with the load specified in <a href="#">Table 1</a>.</p> <p>After the test the shelves, tops or bottoms and the shelf supports shall show no fracture or other damage that can affect the safety.</p>	<b>NA</b>
<b>5.3.5 Pivoted doors</b>		

Test Item	Test Requirement	Result
5.3.5.1 Vertical load of pivoted doors	Carry out the test according to EN 16122:2012, 7.1.2, respecting EN 16122:2012, 7.1.1 with a load of 30 kg. After the test the door shall remain attached to the unit.	NA
5.3.5.2 Horizontal load on pivoted doors	Carry out the test according to EN 16122:2012, 7.1.3, respecting EN 16122:2012, 7.1.1 with a horizontal static load of 60 N. This test is not applicable for doors with an opening angle > 135°. After the test the door shall remain attached to the unit.	NA
5.3.6 Sliding doors and horizontal roll fronts	Carry out the test according to EN 16122:2012, 7.2.2, respecting EN 16122:2012, 7.2.1 with a mass $m_2 = 4$ kg. After the test there shall be no fracture or other damage that can affect the safety.	NA
<b>5.3.7 Extension elements</b>		
5.3.7.1 Slam open of extension elements	Carry out the slam open test according to EN 16122:2012, 7.5.4, respecting EN 16122:2012, 7.5.1 with a load according to <b>Table 1</b> . A factor K of 2,5 shall be applied (see EN 16122:2012, A.3.2). Throughout the test, the extension elements shall not fall out of the cabinet. If a pneumatic system is used the calibration values for 5 kg drawer shall be 1,3 m/s and for 35 kg drawer 1,0 m/s.	P
5.3.7.2 Strength test of extension elements	The extension element shall be loaded according to <b>Table 1</b> . Carry out the test according to EN 16122:2012, 7.5.2, respecting EN 16122:2012, 7.5.1 with a downward force of 200 N. After the test there shall be no fracture or other damage that can affect the safety. After the test the extension element shall remain attached to the unit.	P
5.3.8 Bottom hinged flaps	Carry out the test according to EN 16122:2012, 7.3.1 with a force of 200 N. The flap shall not be loaded according to <b>Table 1</b> . After the test, the flap and/or the unit shall show no fracture or other damage that can affect the safety.	NA
5.3.9 Top hinged flaps	Carry out the test according to A.1. After the test there shall be no fracture or other damage that can affect the safety and the flap or components of it shall not become detached.	NA
<b>5.3.10 Kitchen-worktops and other top surfaces</b>		
5.3.10.1 General	<i>Tests and requirements are applicable to all kitchen-worktops and all other top-surfaces regardless of their mass and with a height <math>\leq 1\ 000</math> mm and with a depth of the top surface <math>\geq 250</math> mm.</i>	
5.3.10.2 Static load test for kitchen-worktops	The kitchen-worktop shall not be loaded. Carry out the test according to EN 16122:2012, 6.2.2 with a force of 1 000 N with the derogation that bottom surfaces shall not be tested. After the test the kitchen-worktop and/or the unit shall show no fracture or other damage that can affect the safety.	NA
5.3.10.3 Static load test for other top surfaces	The top surface shall not be loaded. Carry out the test according to EN 16122:2012, 6.2.2 with a force of 750 N with the derogation that bottom surfaces shall not be tested. After the test the top surface and/or the unit shall show no fracture or other	P

Test Item	Test Requirement	Result
	damage that can affect the safety.	
<b>5.3.11 Wall hanging units and top hanging units</b>		
5.3.11.1 General	<p><i>The tests in 5.3.11 shall be carried out on all wall hanging units and top hanging units with a total mass <math>\geq 10</math> kg.</i></p> <p><i>All components shall be tested irrespective of their total mass. But the safety requirements specified in 5.3.1 to 5.3.10 do not apply to components with a total mass <math>&lt; 10</math> kg.</i></p> <p><i>The unit(s)/component(s) shall be mounted and adjusted according to the manufacturer's installation instructions. If mounting or assembly instructions are not supplied, adjustable wall attachment devices shall be adjusted to the maximum depth (as far from the wall as possible) and to the mid of the height adjustment range.</i></p> <p><i>The unit shall then be levelled by means of distance devices placed as low and as far apart as possible.</i></p>	
5.3.11.2 Movable components, shelf supports and top surfaces	<p>Load according to Table 1. As soon as possible after the loading, carry out the following tests regardless of mass and height of centre of gravity of components:</p> <ul style="list-style-type: none"> <li>— 5.3.3: Shelf supports;</li> <li>— 5.3.5: Pivoted doors;</li> <li>— 5.3.6: Sliding doors and horizontal roll fronts;</li> <li>— 5.3.7: Extension elements;</li> <li>— 5.3.8: Bottom hinged flaps;</li> <li>— 5.3.9: Top hinged flaps;</li> <li>— 5.3.10.2: Kitchen work tops <math>\leq 1\ 000</math> mm from the floor with the derogation that the test shall be carried out at one point most likely to cause failure;</li> <li>— 5.3.10.3: Top surfaces <math>\leq 1\ 000</math> mm from the floor with the derogation that the test shall be carried out at one point most likely to cause failure – this test is applicable for top surfaces with a depth <math>&gt; 250</math> mm.</li> </ul> <p>These tests shall be carried out on those components most likely to cause failure to the wall attachment.</p> <p>After the test the unit shall remain attached to the building (wall/ceiling) and shall carry the test load.</p> <p>It is acceptable that for each test components with a total mass less than 10 kg can become detached.</p>	<b>NA</b>
5.3.11.3 Overload	<p>After carrying out the tests in 5.3.11.2, increase the load on all the storage areas according to the principle in EN 16122:2012, 10.1.3.</p> <p>The specified load is 250 kg/m<sup>2</sup>.</p> <p>Additionally to that load:</p> <ul style="list-style-type: none"> <li>— water basins/sinks shall be completely filled with water or an equivalent mass;</li> <li>— extension elements shall be loaded with their load according to Table 1 adding 20 % or the manufacturer's instructions adding 20 %.</li> </ul> <p>All doors and extension elements shall be open during the test.</p> <p>If the number of shelves is not determined by the structure of the unit, divide the internal height of the unit in millimetres by 200 and take the lower integer. This number minus 1 shall then be the number of shelves to be used during testing.</p> <p>If the volume of the unit, calculated by the inner width, depth and height, is <math>&gt; 0,225</math> m<sup>3</sup>, the loads shall be multiplied by the factor <i>R</i>:</p>	<b>NA</b>

Test Item	Test Requirement	Result
	$R = \frac{1,2}{(0,75 + 2V)}$ <p>where <math>V</math> is the volume of the unit in m<sup>3</sup>.</p> <p>When reduction of the load is necessary, it shall be removed from the bottom. An example is shown in Annex C (informative). After the test the unit shall remain attached to the building (wall/ceiling) and shall carry the test load.</p>	
5.3.11.4 Sidewards detachment test	<p>The unit shall not be loaded.</p> <p>Carry out the test according to A.3 with a horizontal force of 100 N or for a maximum distance of 100 mm.</p> <p>During and after the test the unit shall not become detached.</p>	<b>NA</b>
5.3.11.5 Vertical dislodgement test	<p>The unit shall not be loaded.</p> <p>Carry out the test according to EN 16122:2012, 10.1.4 with a vertical upwards force of 100 N.</p> <p>During and after the test the unit shall not become detached.</p>	<b>NA</b>
<b>5.4 Stability</b>		
5.4.1 General	<p><i>The following requirements apply to free standing storage units with a height to the top of the unit ≥ 600 mm above the floor level and when the potential energy (3.15) exceeds 60 Nm. Free standing units which fall under the principles in 5.1 shall be tested for stability according to <b>Table 3</b>, following the order listed in <b>Table 3</b>. The stability requirements are fulfilled when, during testing in accordance with <b>Table 3</b>, the storage unit does not overturn. If during testing the overturning movement is prevented by the opening of an extension element, door or flap the component shall be prevented from opening and the test repeated. Where specified, the unit shall be loaded in accordance with the loads specified in <b>Table 2</b>. When the unit or component is conspicuously and durably marked by the manufacturer with a maximum load, the unit or component shall be loaded with the stated maximum load multiplied by 0,5, but the load shall not exceed the value calculated using <b>Table 2</b>.</i></p>	
5.4.2 Kitchen floor units with kitchen- worktops)	<p>In addition to the tests in 5.4.1 carry out the test according to EN 16122:2012, 11.2 with a horizontal outwards overturning moment of 200 Nm. During testing, all doors, flaps and extension elements shall be closed.</p>	<b>NA</b>
<b>5.4.3 Stability of TV-furniture</b>		
5.4.3.1 General	<p>The requirements for TV-furniture specified in 5.4.3.2 and 5.4.3.3 are additional to the requirements in 5.4.1.</p>	
5.4.3.2 One door, extension element or flap opened – storage areas unloaded	<p>In addition to the tests in 5.4.1 carry out the test according to A.2.1 with a force of 150 N.</p>	<b>NA</b>

Test Item	Test Requirement	Result
5.4.3.3 Doors, extension elements and flaps closed – storage areas unloaded	<p>Carry out the test according to A.2.2 with a mass of 27 kg.</p> <p>Place stops in front of the feet or castors of the unit and apply an outwards overturning moment of 60 Nm in the direction most likely to cause it to overturn.</p>	<b>NA</b>
5.5 Floor standing units intended to be attached to the building	<p>The requirements only apply to storage units where the height to the top of the unit is 600 mm or more above the floor level, and when the potential energy (3.15) exceeds 60 Nm.</p> <p>Carry out the test according to EN 16122:2012, 10.2 with a horizontal outwards force of 200 N.</p> <p>The force shall be maintained for not less than 10 s and not more than 15 s.</p> <p>After the test, the unit shall remain attached to the structure. Extension elements or flaps. The opening force shall be applied at the centre of the handhold, handle, knob, key etc.</p> <p>During testing, the unit shall not overturn.</p>	<b>NA</b>
5.6 Vertical glass components	<p>Any external, vertical glass component <math>\geq 0,1 \text{ m}^2</math> in area, where the smallest dimension is <math>\geq 200 \text{ mm}</math> and any component of which is <math>&lt; 900 \text{ mm}</math> above the floor, shall not break when tested according to EN 14072:2003, or shall break as specified in EN 14072:2003, Clause 7, c) 2) or c) 3).</p> <p>This test shall not be carried out if the glass fulfils the requirements in EN 12150-1:2015, Clause 8, "Fragmentation test", or where the mode of breakage (<math>\beta</math>) according to EN 12600 is Type B or Type C.</p> <p>This test shall not be carried out for vertical glass components which are fully supported by a carrier material (e.g. particle board).</p> <p>Load storage areas according to <b>Table 1</b>.</p> <p>The test shall be carried out according to EN 14072:2003 with a drop height of 70 mm.</p> <p>The impact point shall be on the most adverse corner 100 mm from each visible edge of the glass. The glass shall be impacted once</p>	<b>NA</b>

Test Item	Test Requirement	Result
6 Product information	<p>Any unit intended to be attached to the building shall be supplied with installation instructions in the language of the country, where the furniture is sold. The instructions shall contain at least the following information, if applicable:</p> <p>a) installation shall be carried out exactly according to the manufacturer's instructions – otherwise a safety risk can occur if incorrectly installed; a warning shall be given to the consumer to notify them of related risks:</p> <p>EXAMPLE 1 For floor standing units intended to be attached to the building: WARNING In order to prevent overturning this product must be used with the wall attachment device provided.</p> <p>EXAMPLE 2 For wall hanging units: WARNING In order to prevent falling down this product must be used with the wall attachment device provided.</p> <p>EXAMPLE 3 For wall hanging units and top hanging units: WARNING Assess the suitability of the wall/ceiling to ensure that the fastening devices will withstand the forces generated.</p> <p>b) Where there are no open stops for the extension element information shall be provided about the potential risk of extension element can be pulled out of the unit.</p> <p>For self-assembly furniture the following additional information is required:</p> <p>c) list of parts supplied;</p> <p>d) list of tools required;</p> <p>e) Diagram of the bolts and other fastenings required.</p>	<b>NA</b>



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