

COMPARISON TABLE OF TESTS ON FURNITURE

DOMESTIC USE STORAGE UNITS								
METHOD	Safety requirements EN 14749	Strength and durability requirements UNI 11663			Strength and durability requirements EN 16121 Par.6 Tab. 5 Liv.1	METHOD	Strength and durability requirements ISO 7170	
		Kitchen and bathroom	Other use	Small components			Level 1	Level 2
Shelf retention Vertical force EN 16122 6.1.3	100 N	/	/	/	/	/	/	/
Shelf retention Horizontal force EN 16122 6.1.2	50% of the shelf weight	/	/	/	/	Shelf retention Horizontal force ISO 7170	50% of the shelf weight	50% of the shelf weight
Deflection of shelves EN 16122 6.1.4	/	Load: 1,5 kg/dm2 Max deflection: 0,5 %	Load: 1,0 kg/dm2 Max deflection: 0,5 %	Load: 1,0 kg/dm2 Max deflection: 0,5 %	Load: 1,5 kg/dm2 Max deflection: 0,5 %	Deflection of shelves ISO 7170	Load: 1,0 kg/dm2 Max deflection: not indicated	Load: 1,5 kg/dm2 Max deflection: not indicated
Shelf supports EN 16122 6.1.5	Load: 0,65 kg /dm2 Impact plate 1,7 kg	Load: 0,65 kg /dm2 Impact plate 1,7 kg	Load: 0,65 kg /dm2 Impact plate 1,7 kg	/	/	Shelf supports ISO 7170	Load: 0,5 kg /dm2 Impact plate 1,1 kg	Load: 0,75 kg /dm2 Impact plate 1,7 kg
Sustained load Tops/Bottoms EN 16122 6.2.1	Only for heavy appliance 0,5 kg/dm3	/	/	/	/	Sustained load Tops/Bottoms ISO 7170	Load: 1,0 kg/dm2 Max deflection: not indicated	Load: 1,5 kg/dm2 Max deflection: not indicated
Static load Tops/Bottoms EN 16122 6.2.2	Only tops 1000 N kitchen 750 N other use	1000 N	750 N	/	/	Static load Tops/Bottoms ISO 7170	600 N	750 N
Clothes rails supports EN 16122 6.3.1	/	4 kg/dm	4 kg/dm	/	4 kg/dm	Clothes rails supports ISO 7170	4 kg/dm	4 kg/dm
Dislodgment of clothes rails EN 16122 6.3.2	/	5 kg/dm	5 kg/dm	/	5 kg/dm	Dislodgment of clothes rails ISO 7170	4 kg/dm	4 kg/dm
Strength of the structure EN 16122 6.4.1	/	350 N	300 N	/	/	Strength of the structure ISO 7170	200 N	300 N
Drop test EN 16122 6.4.2	/	50 mm	50 mm	/	/	Drop test ISO 7170	/	50 mm
Units with castors EN 16122 6.4.3	/	1.000 cycles	500 cycles	/	/	Units with castors ISO 7170	500 cycles	1.000 cycles
Vertical load of pivoted doors EN 16122 7.1.2	30 kg	20 kg	15 kg	10 kg	/	Vertical load of pivoted doors ISO 7170	10 kg	20 kg
Horizontal load of pivoted doors EN 16122 7.1.3	60 N	30 N	25 N	/	/	Horizontal load of pivoted doors ISO 7170	50 N	60 N
Slam shut of pivoted doors EN 16122 7.1.4	/	Test mass 3 kg	Test mass 2 kg	/	Test mass 3 kg	Slam shut of pivoted doors ISO 7170	Test mass 2 kg	Test mass 3 kg
Durability of pivoted doors EN 16122 7.1.5	/	40.000 cycles	20.000 cycles	5.000 cycles	40.000 cycles	Durability of pivoted doors ISO 7170	20.000 cycles	40.000 cycles
Slam/shut of sliding doors EN 16122 7.2.2	Test mass 4 kg	Test mass 3 kg	Test mass 2 kg	/	Test mass 4 kg	Slam/shut of sliding doors ISO 7170	Test mass 2 kg	Test mass 3 kg
Durability of sliding/roll doors EN 16122 7.2.3	/	Sliding 20.000 cycles Roll 10.000 cycles	Sliding 10.000 cycles Roll 5.000 cycles	Sliding 5.000 cycles Roll 2.500 cycles	Sliding 20.000 cycles Roll 10.000 cycles	Durability of sliding/roll doors ISO 7170	10.000 cycles	20.000 cycles
Strength of bottom hinged flaps EN 16122 7.3.1	200 N	200 N	150 N	/	/	Strength of bottom hinged flaps ISO 7170	150 N	200 N
Durability of flaps EN 16122 7.3.2	/	20.000 cycles	10.000 cycles	5.000 cycles	10.000 cycles	Durability of flaps ISO 7170	5.000 cycles	10.000 cycles
Drop test for top hinged flaps EN 16122 7.3.3	/	/	/	/	/	Drop test for top hinged flaps ISO 7170	125 cycles	250 cycles
Slam shut/open of vertical roll fronts EN 16122 7.4.1	/	/	/	/	/	Slam shut/open of vertical roll fronts ISO 7170	Test mass 2 kg	Test mass 3 kg
Durability of vertical roll fronts EN 16122 7.4.2	/	10.000 cycles	5.000 cycles	2.500 cycles	10.000 cycles	Durability of vertical roll fronts ISO 7170	5.000 cycles	10.000 cycles
Strength of extension elements EN 16122 7.5.2	Load on drawer: 0,2 kg/dm3 Force: 200 N	Drawer not loaded Force: 150 N	Drawer not loaded Force: 100 N	Drawer not loaded Force: 100 N	/	Strength of extension elements ISO 7170	Drawer not loaded Force: 100 N	Drawer not loaded Force: 200 N
Durability of extension elements/trays EN 16122 7.5.3	/	Load: 0,2 kg/dm3 Drawers: 50.000 cycles Trays: 20.000 cycles	Load: 0,2 kg/dm3 Drawers: 20.000 cycles Trays: 10.000 cycles	Load: 0,2 kg/dm3 Drawers: 5.000 cycles Trays: /	Load: 0,2 kg/dm3 Drawers: 40.000 cycles Trays: 20.000 cycles	Durability of extension elements ISO 7170	Load: 0,2 kg/dm3 20.000 cycles	Load: 0,35 kg/dm3 40.000 cycles
Slam shut/open of extension elements EN 16122 7.5.4	Only open Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	/	Only shut Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Slam shut/open of extension elements ISO 7170	Factor k: 1,6 Velocity: 1,1 ; 0,8 m/s	Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s
Displacement of extension elements bottom EN 16122 7.5.5	/	Load: 0,2 kg/dm3 Force: 70 N	Load: 0,2 kg/dm3 Force: 60 N	Load: 0,2 kg/dm3 Force: 60 N	Load: 0,2 kg/dm3 Force: 60 N	Displacement of extension elements bottom ISO 7170	Load: 0,2 kg/dm3 Force: 40 N	Load: 0,35 kg/dm3 Force: 60 N
Interlock test EN 16122 7.5.6	/	200 N	200 N	/	/	Interlock test ISO 7170	200 N	200 N
Strength for drawers locking mechanisms EN 16122 7.6.2	/	200 N	200 N	100 N	200 N	Strength for drawers locking mechanisms ISO 7170	200 N	200 N
Strength for doors locking mechanisms EN 16122 7.6.3	/	200 N	200 N	100 N	200 N	Strength for doors locking mechanisms ISO 7170	200 N	200 N
Durability of locking mechanisms EN 16122 7.6.4	/	/	/	/	/	Durability of locking mechanisms ISO 7170	2.500 cycles	5.000 cycles
Sustained load for trays EN 16122 8.2	/	1,0 kg/dm3	0,65 kg/dm3	/	0,65 kg/dm3	/	/	/
Drop test for trays EN 16122 8.3	/	700 mm	350 mm	350 mm	350 mm	/	/	/
Strength of coat hooks EN 16122 9	/	40 N	40 N	/	40 N	/	/	/
Overload of wall hanged cabinets EN 16122 10.1.3	Nominal load: 2,5 kg/dm2	/	/	/	/	Overload of wall hanged cabinets ISO 7170	Nominal load: 2,0 kg/dm2	Nominal load: 2,5 kg/dm2
Dislodgement of wall hanged cabinets EN 16122 10.1.4	100 N	/	/	/	/	Dislodgement of wall hanged cabinets ISO 7170	/	100 N
Units attached on wall, supported by the floor EN 16122 10.2	200 N	/	/	/	/	Units attached on wall, supported by the floor EN 7170	200 N	200 N

NON DOMESTIC USE STORAGE UNITS					
METHOD	Safety requirements EN 16121 par.5.7	Strength and durability requirements EN 16121 par. 6		METHOD	Strength and durab. Req. ISO 7170
		Level 1	Level 2		
Shelf retention Vertical force EN 16122 6.1.3	100 N	/	/	/	/
Shelf retention Horizontal force EN 16122 6.1.2	50% of the shelf weight	/	/	Shelf retention Horizontal force ISO 7170	50% of the shelf weight
Deflection of shelves EN 16122 6.1.4	/	Load: 1,5 kg/dm2 Max deflection: 0,5 %	Load: 2,0 kg/dm2 Max deflection: 0,5 %	Deflection of shelves ISO 7170	Load: 2,0 kg/dm2 Max deflection: not indicated
Shelf supports EN 16122 6.1.5	Load: 0,65 kg /dm2 Impact plate 1,7 kg	/	/	Shelf supports ISO 7170	Load: 1,0 kg /dm2 Impact plate 2,5 kg
Sustained load Tops/Bottoms EN 16122 6.2.1	/	/	/	Sustained load Tops/Bottoms ISO 7170	Load: 2,0 kg/dm2 Max deflection: not indicated
Static load Tops/Bottoms EN 16122 6.2.2	750 N	/	/	Static load Tops/Bottoms ISO 7170	1000 N
Clothes rails supports EN 16122 6.3.1	/	4 kg/dm	4 kg/dm	Clothes rails supports ISO 7170	5 kg/dm
Dislodgment of clothes rails EN 16122 6.3.2	/	5 kg/dm	5 kg/dm	Dislodgment of clothes rails ISO 7170	5 kg/dm
Strength of the structure EN 16122 6.4.1	350 N	/	/	Strength of the structure ISO 7170	450 N
Drop test EN 16122 6.4.2	/	/	50 mm	Drop test ISO 7170	100 mm
Units with castors EN 16122 6.4.3	2.000 cycles	/	/	Units with castors ISO 7170	500 cycles
Vertical load of pivoted doors EN 16122 7.1.2	30 kg	/	/	Vertical load of pivoted doors ISO 7170	30 kg
Horizontal load of pivoted doors EN 16122 7.1.3	60 N	/	/	Horizontal load of pivoted doors ISO 7170	70 N
Slam shut of pivoted doors EN 16122 7.1.4	/	Test mass 3 kg	Test mass 4 kg	Slam shut of pivoted doors ISO 7170	Test mass 4 kg
Durability of pivoted doors EN 16122 7.1.5	/	40.000 cycles	80.000 cycles	Durability of pivoted doors ISO 7170	80.000 cycles
Slam/shut of sliding doors EN 16122 7.2.2	/	Test mass 4 kg	Test mass 6 kg	Slam/shut of sliding doors ISO 7170	Test mass 4 kg
Durability of sliding/roll doors EN 16122 7.2.3	/	Sliding 20.000 cycles Roll 10.000 cycles	Sliding 40.000 cycles Roll 20.000 cycles	Durability of sliding/roll doors ISO 7170	40.000 cycles
Strength of bottom hinged flaps EN 16122 7.3.1	200 N	/	/	Strength of bottom hinged flaps ISO 7170	250 N
Durability of flaps EN 16122 7.3.2	/	10.000 cycles	20.000 cycles	Durability of flaps ISO 7170	20.000 cycles
Drop test for top hinged flaps EN 16122 7.3.3	/	/	/	Drop test for top hinged flaps ISO 7170	500 cycles
Slam shut/open of vertical roll fronts EN 16122 7.4.1	/	/	/	Slam shut/open of vertical roll fronts ISO 7170	Test mass 4 kg
Durability of vertical roll fronts EN 16122 7.4.2	/	10.000 cycles	20.000 cycles	Durability of vertical roll fronts ISO 7170	20.000 cycles
Strength of extension elements EN 16122 7.5.2	Load on drawer: 0,2 kg/dm3 Force: 200 N	/	/	Strength of extension elements ISO 7170	Drawer not loaded Force: 300 N
Durability of extension elements/trays EN 16122 7.5.3	/	Load: 0,2 kg/dm3 Drawers: 40.000 cycles Trays: 20.000 cycles	Load: 0,2 kg/dm3 Drawers: 80.000 cycles Trays: 40.000 cycles	Durability of extension elements ISO 7170	Load: 0,5 kg/dm3 80.000 cycles
Slam shut/open of extension elements EN 16122 7.5.4	Only open Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Only shut Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Only shut Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Slam shut/open of extension elements ISO 7170	Factor k: 2,9 Velocity: 1,4 ; 1,1 m/s
Displacement of extension elements bottom EN 16122 7.5.5	/	Load: 0,2 kg/dm3 Force: 60 N	Load: 0,2 kg/dm3 Force: 70 N	Displacement of extension elements bottom ISO 7170	Load: 0,5 kg/dm3 Force: 70 N
Interlock test EN 16122 7.5.6	200 N	/	/	Interlock test ISO 7170	200 N
Strength for drawers locking mechanisms EN 16122 7.6.2	/	200 N	200 N	Strength for drawers locking mechanisms ISO 7170	200 N
Strength for doors locking mechanisms EN 16122 7.6.3	/	200 N	200 N	Strength for doors locking mechanisms ISO 7170	200 N
Durability of locking mechanisms EN 16122 7.6.4	/	/	/	Durability of locking mechanisms ISO 7170	10.000 cycles
Sustained load for trays EN 16122 8.2	/	0,65 kg/dm3	1,0 kg/dm3	/	/
Drop test for trays EN 16122 8.3	/	350 mm	700 mm	/	/
Strength of coat hooks EN 16122 9	/	40 N	150 N	/	/
Overload of wall hanged cabinets EN 16122 10.1.3	Nominal load: 2,5 kg/dm2	/	/	Overload of wall hanged cabinets ISO 7170	Nominal load: 3,0 kg/dm2
Dislodgement of wall hanged cabinets EN 16122 10.1.4	100 N	/	/	Dislodgement of wall hanged cabinets ISO 7170	200 N
Units attached on wall, supported by the floor EN 16122 10.2	200 N	/	/	Units attached on wall, supported by the floor EN 7170	200 N

OFFICE USE STORAGE UNITS		
METHOD	Safety requirements EN 14073-2	Strength and durability requirements EN 14073-3/14074
/	/	/
Shelf retention Horizontal force EN 14073-3	50% of the shelf weight	50% of the shelf weight
/	/	/
Shelf supports EN 14073-3	Load: 1,5 kg /dm2 Impact plate 1,7 or 2,5 kg	Load: 1,5 kg /dm2 Impact plate 1,7 or 2,5 kg
/	/	/
Static load on tops EN 14073-3	1000 N	1000 N
/	/	/
Strength of the structure EN 14073-3	/	350 N
/	/	/
Units with castors EN 14074	/	2.000 cycles
Vertical load of pivoted doors EN 14074	30 kg	30 kg
Horizontal load of pivoted doors EN 14074	/	80 N
/	/	/
Durability of pivoted doors EN 14074	/	50.000 cycles
Slam/shut of sliding doors EN 14074	Test mass 4 kg	Test mass 4 kg
Durability of sliding/roll doors EN 14074	/	Sliding 40.000 cycles Roll 20.000 cycles
Strength of bottom hinged flaps EN 14074	250 N	250 N
Durability of flaps EN 14074	/	20.000 cycles
/	/	/
Durability of vertical roll fronts EN 14074	/	20.000 cycles
Strength of extension elements EN 14074	Load on drawer: 0,5 kg/dm3 Force: = Total mass (max 250 N)	Load on drawer: 0,5 kg/dm3 Force: = Total mass (max 250 N)
Durability of extension elements EN 14074	/	Load: 0,5 kg/dm3 50.000 cycles
Slam shut/open of extension elements EN 14074	Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s	Factor k: 2,5 Velocity: 1,3 ; 1,0 m/s
/	/	/
Interlock test EN 14074	200 N	200 N
/	/	/
Overload of wall hanged cabinets EN 14073-3	Load: 3 kg/dm2	Load: 3,0 kg/dm2
Dislodgement of wall hanged cabinets EN 14073-3	100 N	100 N
Units attached on wall, supported by the floor EN 14073-3	200 N	200 N

 = safety tests