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Testing of Cupio drawer pedestal with castors

(1 appendix)

Summary

Cupio drawer pedestal with castors meet the requirements for strength and security according to EN 14073-2:2004 and EN 14074:2004.

1 Introduction

On behalf of Martela AB, a Cupio drawer pedestal with castors has been tested at SP in accordance with EN 14073-2:2004 Office furniture – Storage furniture – Part 2: Safety requirements and EN 14074:2004 Office furniture – Tables and desks and storage furniture – Test methods for the determination of strength and durability of moving parts.

2 Test specimen



Figure 1 Cupio drawer pedestal with castors

Dimensions	W=433 mm, D=599 mm, H=536 mm.
Frame:	18 mm laminated particle board.
Extension element:	Drawer front in 18 mm laminated particle board. Drawers in plastic. Extension drawer slides in steel.
Castors:	4 castors in plastic Ø 65 mm, two front castors are lockable, see figure 2 in appendix 1.
Functions:	The furniture is equipped with interlock system.
Info:	-

The test specimen was selected by the customer and arrived at 2013-03-22.

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3 Test methods and test procedure

Standards and methods which is the basis for the tests:

EN 14073–3:2004 Office furniture – Storage furniture Part 3: Test methods for the determination of stability and strength of the structure.

EN 14073–2:2004 Office furniture – Storage furniture Part 2: Safety requirements.

EN 14074:2004 Office furniture – Tables and desks and storage furniture – Test methods for the determination of strength and durability of moving parts.

ISO 7170:2005 Furniture – Storage units – Determination of strength and durability.

Tests were carried out in $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%$ RH. The test methods are explained in table 1-3.

The test was carried out 2013-03-28 – 2013-04-05.

4 Results

Table 1

1.	General requirements	EN 14073	Req. fulfilled
1.1	Accessible edges and corners shall be free from burrs and rounded or chamfered. There shall be no open ended tubes.	3.4	Passed
1.2	All moveable parts accessible during normal use shall have safety distances in any position during movement of ≤ 8 mm or ≥ 25 mm. This applies to any two elements moving relatively to each other, with the exception of doors, flaps and extension elements. The safety distance also apply to the distance between handles and other parts.	3.4	N/a
1.3	Adjustable parts shall be such as to prevent in advertent operation or release.	3.4	N/a
1.4	Vertically sliding roll fronts shall not close by themselves from any position higher than 200 mm measured from the closed position.	3.4	N/a
1.5	Extension elements shall have effective open stops. They shall resist being pulled out of the carcass once by a horizontal force of 200 N applied to the handle of the loaded extension element.	3.4	Passed

Table 2

2.	Test (carcass)	EN 14073	Cycles	Loading	Req. fulfilled
2.1	Strength of unit	5.2	10	350 N	N/a
2.2	Pull out of shelves	5.3.1		20 N (max)	N/a
2.3	Strength of shelf supports	5.3.2	10	1,7 – 2,5 kg	N/a
2.4	Strength of top surfaces	5.4	10	1 000 N	Passed
2.5	Stability (unloaded)	5.5.1			Passed

2.	Test (carcass)	EN 14073	Cycles	Loading	Req. fulfilled
2.6	Stability (loaded)	5.5.2			Passed
2.7	Dislodgment of screen and wall hanging cabinets and shelves	5.6.2		100 N	N/a
2.8	Strength of screen and wall attachment devices	5.6.4		According table 1	N/a
2.9	Floor standing unit attached to the building	5.7		200 N	N/a
2.10	Deflection of shelves. (1 week)	ISO 7170:2005		Level 3	N/a

Table 3

3.	Test (movable parts)	EN 14074	Cycles	Loading	Req. fulfilled
3.1	Strength of extension elements	6.2.1	10	250 N (max)	Passed
3.2	Durability test of extension elements	6.2.2	50 000	0,5 kg/dm ³	Passed
3.3	Slam open of extension elements	6.2.3	10	1,3 m/s	Passed
3.4	Interlock test	6.2.4	10	200 N	Passed
3.5	Vertical load on doors	6.3.1	10	30 kg	N/a
3.6	Horizontal static force on open door	6.3.2	10	80 N	N/a
3.7	Durability test on hinged and pivoted doors	6.3.3	50 000		N/a
3.8	Durability of sliding doors	6.4.1	40 000		N/a
3.9	Durability of horizontal roll fronts	6.4.1	20 000		N/a
3.10	Slam shut/open of sliding doors and horizontal roll fronts	6.4.2	10		N/a
3.11	Durability of vertical roll front	6.5.1	20 000		N/a
3.12	Strength of flaps	6.6.1	10	250 N	N/a
3.13	Durability of flaps	6.6.2	20 000		N/a
3.14	Rolling test for mobile filing pedestals	6.7	2 000		Passed

5 Conclusion

At the end of the test, the tested piece did not exhibit any faults, fractures or other damage judged to affect its safety and functions when used in accordance with EN 14073-2:2004 and EN 14074:2004.

The test results apply solely to the specimen tested.

SP Technical Research Institute of Sweden Wood Technology

Performed by

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Appendix

1. Pictures (1 pages)

Appendix 1

Pictures

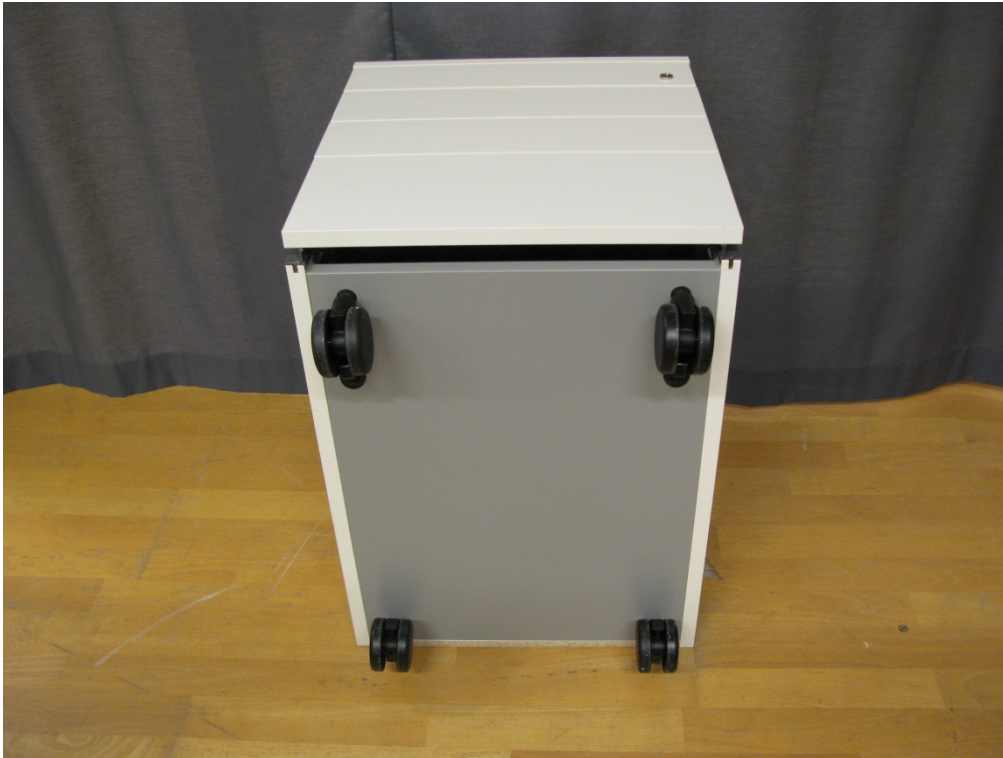


Figure 2 Underneath with positioning of castors