

Test Report

Report Number:
986087-9-ST



**DANISH
TECHNOLOGICAL
INSTITUTE**

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Init.: JJOH/JHA
Order no.: 986087
Encl.: 1

- Assignor:** HAY ApS, Havnen 1, DK-8700 Horsens
- Item:** **Korpus Shelf, Large Size** - the test also covers the Medium Size
- Sampling:** The assignor confirms having selected the product. The product was forwarded by the assignor and received at Danish Technological Institute on 12 August 2021.
- Period:** The test took place from 6 September 2021 to 16 September 2021.
- Method:** EN 16121:2013+A1:2017, Non-domestic storage furniture - Requirements for safety, strength, durability and stability
Test severity 1: General: hotels, homes for the elderly, kindergarten, reception areas, libraries, restaurants.
Additional information is given in enclosure A.
- Test results:** Passed.
The results are shown in enclosure A.
- Terms:** This test was conducted accredited in accordance with international requirements (ISO/IEC 17025:2017) and in accordance with the General Terms and Conditions of Danish Technological Institute. The test results solely apply to the tested item. This test report may be quoted in extract only if Danish Technological Institute has granted its written consent.
- Place:** Danish Technological Institute, Taastrup, Building and Construction
- Signature:** This document is only valid with a digital signature from Danish Technological Institute. The date of issue appears from the digital signature.
Jesper Bruhn Johansen
Consultant



DIGITALLY SIGNED DOCUMENT

16 September 2021

DANISH TECHNOLOGICAL INSTITUTE



DANAK

TEST Reg.no. 2



Results

Safety requirements

Test No.	Test	Result
5.2	General requirements	Passed
5.3.1	Shear and squeeze points when setting up and folding	N/A
5.3.2	Shear and squeeze points under influence of powered mechanisms	N/A
5.3.3	Shear and squeeze points during use	Passed
5.4	Hinged horizontal lids	N/A
5.5	Vertical glass components	N/A

Stability

Test No.	Test	Test Method	Loading	Result
5.6.1	Doors, extension elements and flaps closed, all storage units unloaded - Units that are, or can be, adjusted to a height of 1000 mm or less	EN 16122, 11.2.1	Vertical force, N	N/A
5.6.2	Doors, extension elements and flaps closed, all storage units unloaded - Units that are, or can be, adjusted to a height of more than 1000 mm	EN 16122, 11.2.2	Vertical force, N Outward force, N	N/A
5.6.3	All storage areas unloaded and all doors, extension elements and flaps open	EN 16122, 11.4.1	-	N/A
5.6.4	All storage areas unloaded with overturning load	EN 16122, 11.4.2	Vertical force, N	N/A
5.6.5	All storage areas loaded with overturning load	EN 16122, 11.4.3	Vertical force, N	N/A
5.6.6	Doors, extension elements and flaps closed and locked	EN 16122, 11.5	Outward force, N	N/A
5.6.7	Dynamic stability test for units with castors	EN 16122, 11.6	-	N/A

Structural safety

Test No.	Test	Test Method	Loading	Result
5.7.1.1	Static load test for tops and bottoms	EN 16122, 6.2.2	Force, N Cycles	N/A
5.7.1.2	Shelf retention test - horizontal outward	EN 16122, 6.1.2	Force, N	Passed
5.7.1.3	Shelf retention test - vertical downward	EN 16122, 6.1.3	Force, N	Passed
5.7.1.4	Strength of shelf supports	EN 16122, 6.1.5	Cycles Mass per unit area, kg/dm ²	Passed
5.7.1.5	Vertical load on pivoted doors	EN 16122, 7.1.2	Mass, kg Cycles	N/A
5.7.1.6	Horizontal load on pivoted doors	EN 16122, 7.1.3	Force, N Cycles	N/A
5.7.1.7	Strength of bottom-hinged flaps	EN 16122, 7.3.1	Force, N Cycles	N/A
5.7.1.8	Strength of extension elements	EN 16122, 7.5.2	Force, N Cycles	N/A
5.7.1.9	Slam open of extension elements	EN 16122, 7.5.4	Velocity, m/s	N/A
5.7.1.10	Interlock test	EN 16122, 7.5.6	Force, N Cycles	N/A
5.7.1.11	Test for structure and underframes	EN 16122, 6.4.1	Force, N Cycles	N/A
5.7.1.12	Test for unit with castors or wheels	EN 16122, 6.4.3	Cycles	N/A
5.7.1.13	Overload test	EN 16122, 10.1.3	Mass per unit area, kg/dm ²	Passed
5.7.1.14	Dislodgement test	EN 16122, 10.1.4	Force, N	Passed
5.7.1.15	Units supported by the floor	EN 16122, 10.2	Force, N	N/A



Strength and durability

Requirements in accordance with EN 16121 Severity 1

Test No.	Test	Test Method	Loading	Result
6.1.1	Strength of cloth rail supports	EN 16122, 6.3.1	Mass per unit length, kg/dm Time, h	N/A
6.1.2	Strength of coat hooks	EN 16122, 9.1	Force per hook, N Cycles	Passed
6.1.3	Durability of pivoted doors	EN 16122, 7.1.5	Cycles	N/A
6.1.4	Slam shut test of pivoted doors	EN 16122, 7.1.4	Mass, kg Cycles	N/A
6.1.5	Slam shut/open of sliding doors and horizontal roll fronts	EN 16122, 7.2.2	Mass, kg Cycles	N/A
6.1.6	Durability of sliding doors and horizontal roll fronts	EN 16122, 7.2.3	Cycles - sliding doors Cycles - roll fronts	N/A
6.1.7	Durability of flaps	EN 16122, 7.3.2	Cycles	N/A
6.1.8	Durability of vertical roll fronts	EN 16122, 7.4.2	Cycles	N/A
6.1.9	Durability of extension elements	EN 16122, 7.5.3	Cycles - extension elements Cycles - trays	N/A
6.1.10	Slam shut of extension elements	EN 16122, 7.5.4	Velocity, m/s	N/A
6.1.11	Displacement of extension element bottoms	EN 16122, 7.5.5	Force, N Cycles	N/A
6.1.12	Strength test for locking and latching mechanisms for extension elements	EN 16122, 7.6.2	Force, N Cycles	N/A
6.1.13	Strength test for locking and latching mechanisms for doors, flaps and roll fronts	EN 16122, 7.6.3	Force, N Cycles	N/A
6.1.14	Drop test	EN 16122, 6.4.2	Drop height, mm	N/A
6.1.15	Deflection of shelves	EN 16122, 6.1.4	Mass per unit area, kg/dm ²	Passed
6.1.16	Dislodgement of clothes rails	EN 16122, 6.3.2	Mass per unit length, kg/dm	N/A
6.1.17	Drop test for trays	EN 16122, 8.3	Drop height, mm Cycles	N/A
6.1.18	Sustained load test for trays	EN 16122, 8.2	Kg/dm ²	N/A

Documentation

Test No.	Test	Result
7	Information for use	N/A

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Information provided by the Danish Technological Institute

Photograph of the received sample



Information required by EN 16121:2013

European Standards used:

EN 16121:2013+A1:2017 - Non-domestic storage furniture – Requirements for safety, strength, durability and stability

EN 16122:2012 - Domestic and non-domestic storage furniture - Test methods for the determination of strength, durability and stability

Details of the tested item:

Model:	Korpus Shelf, Large Size			Type:	Shelf		
Width:	900 mm	Height:	150 mm	Depth:	250 mm	Weight:	2.16 kg
Materials:	Painted metal						

Details of defects observed before testing:

None.

Details of any deviations from this standard:

None.

Any variation from the specified temperature range:

None.

Test result:

See enclosure A.

Name and address of the test facility:

Danish Technological Institute, Gregersensvej, Taastrup 2630, Denmark

Date of test:

2021-09-06 to 2021-09-16