

Test Report

Revision 1

Report Number:
986087-10-ST rev. 1



**DANISH
TECHNOLOGICAL
INSTITUTE**

Gregersensvej 1
DK-2630 Taastrup
+45 72 20 20 00
info@teknologisk.dk
www.teknologisk.dk

Page 1 of 5
Init.: JJOH/JHA
Order no.: 986087
Encl.: 1

Assignor: HAY ApS, Havnen 1, DK-8700 Horsens

Item: Korpus Shelf, Small 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 7 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.

Remarks: This report replaces report dated 16-09-2021. Rev. 1 is due to a typing error in the width of the product - it has been changed to 350 mm in stead of 250 mm.

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

27 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 | 750 | 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 | 350 50 | 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 | 100 | 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 | 100 | 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 | 750 10 | 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 | 100 | Passed |
| 5.7.1.4 | Strength of shelf supports | EN 16122, 6.1.5 | Cycles Mass per unit area, kg/dm ² | 10 0.65 | Passed |
| 5.7.1.5 | Vertical load on pivoted doors | EN 16122, 7.1.2 | Mass, kg Cycles | 30 10 | N/A |
| 5.7.1.6 | Horizontal load on pivoted doors | EN 16122, 7.1.3 | Force, N Cycles | 60 10 | N/A |
| 5.7.1.7 | Strength of bottom-hinged flaps | EN 16122, 7.3.1 | Force, N Cycles | 200 10 | N/A |
| 5.7.1.8 | Strength of extension elements | EN 16122, 7.5.2 | Force, N Cycles | 200 10 | N/A |
| 5.7.1.9 | Slam open of extension elements | EN 16122, 7.5.4 | Velocity, m/s | 1.3 | N/A |
| 5.7.1.10 | Interlock test | EN 16122, 7.5.6 | Force, N Cycles | 200 10 | N/A |
| 5.7.1.11 | Test for structure and underframes | EN 16122, 6.4.1 | Force, N Cycles | 350 10 | N/A |
| 5.7.1.12 | Test for unit with castors or wheels | EN 16122, 6.4.3 | Cycles | 2000 | N/A |
| 5.7.1.13 | Overload test | EN 16122, 10.1.3 | Mass per unit area, kg/dm ² | 2.5 | Passed |
| 5.7.1.14 | Dislodgement test | EN 16122, 10.1.4 | Force, N | 100 | Passed |
| 5.7.1.15 | Units supported by the floor | EN 16122, 10.2 | Force, N | 200 | 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 | 4 1 N/A |
| 6.1.2 | Strength of coat hooks | EN 16122, 9.1 | Force per hook, N Cycles | 40 10 Passed |
| 6.1.3 | Durability of pivoted doors | EN 16122, 7.1.5 | Cycles | 40000 N/A |
| 6.1.4 | Slam shut test of pivoted doors | EN 16122, 7.1.4 | Mass, kg Cycles | 3 10 N/A |
| 6.1.5 | Slam shut/open of sliding doors and horizontal roll fronts | EN 16122, 7.2.2 | Mass, kg Cycles | 4 10 N/A |
| 6.1.6 | Durability of sliding doors and horizontal roll fronts | EN 16122, 7.2.3 | Cycles - sliding doors Cycles - roll fronts | 20000 10000 N/A |
| 6.1.7 | Durability of flaps | EN 16122, 7.3.2 | Cycles | 10000 N/A |
| 6.1.8 | Durability of vertical roll fronts | EN 16122, 7.4.2 | Cycles | 10000 N/A |
| 6.1.9 | Durability of extension elements | EN 16122, 7.5.3 | Cycles - extension elements Cycles - trays | 40000 20000 N/A |
| 6.1.10 | Slam shut of extension elements | EN 16122, 7.5.4 | Velocity, m/s | 1 N/A |
| 6.1.11 | Displacement of extension element bottoms | EN 16122, 7.5.5 | Force, N Cycles | 60 10 N/A |
| 6.1.12 | Strength test for locking and latching mechanisms for extension elements | EN 16122, 7.6.2 | Force, N Cycles | 200 10 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 | 200 10 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 | 1.5 Passed |
| 6.1.16 | Dislodgement of clothes rails | EN 16122, 6.3.2 | Mass per unit length, kg/dm | 5 N/A |
| 6.1.17 | Drop test for trays | EN 16122, 8.3 | Drop height, mm Cycles | 350 10 N/A |
| 6.1.18 | Sustained load test for trays | EN 16122, 8.2 | Kg/dm ² | 0.65 N/A |

Documentation

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



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, Small Size | | | Type: | Shelf | | |
| Width: | 350 mm | Height: | 220 mm | Depth: | 288 mm | Weight: | 1 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:

2021-09-07 to 2021-09-16