

Test Report

Report No.: 108082-21



**DANISH
TECHNOLOGICAL
INSTITUTE**

Gregersensvej
DK-2630 Taastrup
Tel. +45 72 20 20 00
Fax +45 72 20 20 19

info@teknologisk.dk
www.teknologisk.dk

Assignor: Hay ApS
Havnen 1
DK-8700 Horsens

Page 1 of 1
Jjoh/jnas/hbs
Order no.: 108082
No. of appendices: 2

Item: Model: Colour Cabinet Tall

Type:	Storage unit				
Length:	750 mm	Width:	340 mm	Height:	1300 mm
Weight:	46.16				
Materials:	Coloured MDF				

Sampling: The test material was sampled by the client and received at the Danish Technological Institute 13-12-2021.

Method: ANSI/BIFMA X5.9-2019 American National Standard For Office Furnishings – **Storage Units**

Period: The testing was carried out from 13-12-2021 to 03-01-2022.

Result: Model Colour Cabinet Tall fulfils the requirements of ANSI/BIFMA X5.9-2019

Individual results appear from Appendix 1.

Storage: The test material will be destroyed after 1 month, unless otherwise agreed.

Terms: Accredited testing was carried out in compliance with international requirements (EN/ISO/IEC 17025:2005) and in compliance with Danish Technological Institute's General Terms and Conditions regarding Commissioned Work accepted by Danish Technological Institute. The test results apply to the tested products only. This report may be quoted in extract only if the laboratory has granted its written consent.

Date/place: 04-01-2022, Danish Technological Institute, Wood and Biomaterials, Taastrup

Signature: Test responsible

Co-signatory



Order no. 108082-21
Appendix 1
Page 1 of 3
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

ANSI/BIFMA X5.9-2019 – Type III

Test		Result
4	Unit strength test:	
4.2	Concentrated Funct. load test: 91 kg (unit height ≤965mm)	N/A
4.3	Distributed Funct. load test: 63 kg/m ² / 141kg/m ² (Top = 41 kg – shelves = 103 kg)	Passed
4.4	Concentrated Proof load test: 136 kg (unit height ≤965mm)	N/A
4.5	Distributed Proof load test: 99 kg/m ² / 211kg/m ² (Top = 62 kg – shelves = 158 kg)	Passed
4.6	Extendible element static load test:	
4.6.2	Extendible element Funct. load test: 470 kg/m ³	N/A
4.6.3	Extendible element Proof load test: 720 kg/m ³	N/A
5	Leg/glide assembly strength test:	
	Units ≥18kg: Force "A" = 0.5 x (unit weight, kg) x 9.8 + 222 N (445 N)	Passed
	Units ≤18kg: Force "A" = 0.5 x (unit weight, kg) x 9.8 + 44 N	N/A
	Functional Force "B" = 0,5 x "A" (222.5 N)	Passed
	Proof Force "A" = 1.5 x (Funct. Force "A") (667.5 N)	Passed
	Proof Force "B" = 1.5 x (Funct. Force "B") (334 N)	Passed
6	Racking resistance test – for Type I storage units. Only units ≤1830mm in length / without castors	
	2 x 23 kg on opposite corners on top of unit – 60 minutes. 'Pull force test' – sec. 20. (Shelves = 99 kg)	Passed
7	Vertical load durability tests:	
7.1	Top load ease cycle test: Test bag: 91 kg X 10,000 cycles	N/A
7.2	Drop test – dynamic – for units with seat surfaces: Test bag: 91 kg – drop from 76 mm	N/A
8	Separation and disengagement test:	
8.1	Separation test for all storage units with vertically attached/stackable components: Constant load: 136 kg Test bag (swing): 22.7 kg – front/back/center	N/A

Order no. 108082-21
Appendix 1
Page 2 of 3
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Test		Result
8.2	Upward impact force disengagement test for storage components: Upward impact force: 4.5 kg	N/A
8.3	Upward force disengagement test for storage components: Upward force: 489 N	N/A
9	Stability test:	
9.2	Horizontal force stability test for tall storage units <u>without</u> extendible elements: Horizontal force: gradually up to 178 N to front/back/side	Passed
9.3	Stability test for type I units with at least one extendible element: Constant load in 2 nd largest clear space: 140 kg/m ³ Horizontal outward force on uppermost extendible element: 44 N	N/A
9.4	Stability test for type I storage units with multiple extendible elements: Functional load in accordance with Table 1	N/A
9.5	Stability test for Type II storage units having extendible elements: Load in accordance with Table 1	N/A
9.6	Vertical force stability test for storage units: Suspended vertical load: 22.7 kg	Passed
9.7	Stability test for pedestals/storage units with seat surfaces: Vertical load: 600 N Horizontal force: gradually up to 20 N	N/A
10	Storage unit drop test – for Type I storage units	
	Drop height: <45 kg: 180 mm 45-90 kg: 120 mm (Weight: 46.16 kg) >90-136 kg: 60 mm >136 kg: N/A	Passed
11	Movement durability test for mobile storage units	
	<u>Cycles over obstructions / cycles over flat surface</u> Units <45 kg: 25.000 / 0 Units >45 kg: 100 / 1000	N/A
12	Extendible element rebound test	
	Opening force: up to 178 N	N/A
13	Extendible element retention impact and durability (out stop) tests	
	Constant load in accordance with Table 1 Horizontal outward force: 2.3 kg x 15,000 cycles	N/A

Order no. 108082-21
Appendix 1
Page 3 of 3
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Test		Result
14	Lock tests	
14.2	Force test for extendible element locks: Constant load in accordance with Table 1 Horizontal outward force: 222 N Horizontal upward force (30°): 222 N	N/A
14.3	Force test for door locks: Force in direction of door travel: 222 N	N/A
14.4	Locking mechanism cycle test: Lock/unlock: 5,000 cycles	N/A
15	Extendible element cycle tests – load capacity >7 kg	
15.2	Cycle test for extendible elements – deeper than wide: Constant load in accordance with Table 1 Cycles: 50,000	N/A
1 5.3	Cycle test for extendible elements – wider than deep: Cycles: Single narrow pull: 50,000 at centre Single wide pull: 30,000 at centre/10,000 at RH/10,000 at LH Multiple pulls >457 mm: 25,000 at centre RH/25,000 at centre LH Multiple pulls <457 mm: 50,000 at centre of unit	N/A
15.4	Cycle test for low height drawers: Constant load: 2.3 kg Cycles: 10,000	N/A
16	Interlock strength test	
	Horizontal outward force: 133 N	N/A
17	Door tests	
17.6	Test in accordance with Tables 7/8/9	See Report 108082-38
17.13	Slam open and closed test for door which do not free fall.	See Report 108082-38
18	Clothes rail static loading test	
	30 kg/m x 60 minutes	N/A
19	Latch test	
	Operating cycles: 20,000/40,000	N/A
20	Pull force test	
	Load in accordance with Table 1 Max. force: 50 N	See Report 108082-38

N/A – Not applicable

Order no. 108082-21
Appendix 2
Page 1 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Photos



Order no. 108082-21
Appendix 2
Page 2 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 4.3 – test set-up



Order no. 108082-21
Appendix 2
Page 3 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 4.5 – test set-up



Order no. 108082-21
Appendix 2
Page 4 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 5 – test set-up



Order no. 108082-21
Appendix 2
Page 5 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 6 – test set-up



Order no. 108082-21
Appendix 2
Page 6 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 9.2 – test set-up



Order no. 108082-21
Appendix 2
Page 7 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 9.6 – test set-up



Order no. 108082-21
Appendix 2
Page 8 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 10 – test set-up



Order no. 108082-21
Appendix 2
Page 9 of 9
Initials jjoh/jnas/hbs

Testing of Model: Colour Cabinet Tall

Section 20 – test set-up

