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GRATNELLS LTD
8 Howard Way
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Essex
CM20 2SU

Our Ref: CA-71067-S1
Date: 03 January 2024
Delivery Date: 14 December 2023
Test Dates: 14 December 2023 - 02 January 2024

For the attention of Kelvin Tam

SAMPLE(S) SUBMITTED FOR TEST AND IDENTIFIED BY CUSTOMER AS:

One, Gratnells Callero Double Trolley

TEST(S) AS REQUESTED BY CUSTOMER:

RESULT:

BS EN 16121: 2013 +A1: 2017 Test Level 2

Pass[^]

[^]Excluding Clauses 5.7.1.12, 5.6.7 & 7.

Technical report references marked * indicate this report is supplementary to the previous report with the same reference

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When a statement of conformity to a test standard is reported the test result(s) are unlikely to be the "true" result(s) due to measurement uncertainty. When the sample is tested under the criteria and conditions as defined in the method and the measured result is outside of the upper/lower acceptance limit and corrected for uncertainty at 95% probability, the risk of a false accept/reject is ≤2.5%. These results will be reported as Pass/Fail. If the test result(s) obtained under the same conditions is close to the upper/lower acceptance limit and could be either side of the accept/reject threshold these results will be reported with a conformance probability.



CA-71067-S1

FIRA International
Registered office: 3rd Floor Davidson Building
5 Southampton Street,
London, UK, WC2E 7HA
Registered in England No: 03181481

TECHNICAL REPORT

DESCRIPTION

Item: Gratnells Callero Double Trolley
Supplied by: **GRATNELLS LTD**
Number of Photos: Four
Overall Dimensions: 1080mm High x 685mm Wide x 430mm Deep

ITEM	DESCRIPTION
Material/Thickness	1.5mm Thick Folded Metal Carcase
Number/Description of Shelves	1x Top Surface, Removable
Number/Description of Drawers	8x Removable Plastic Tray
Runner Manufacturer	Unbranded
Runner Type	Plastic, Slot-In Rails – 2mm
Runner Extension	420mm
Drawer Materials	3mm Thick Plastic - Moulded
Number/Description of Legs	4x Plastic Castor/Wheels with Rubber Tyres – 70mm Ø

All dimensions are approximate.

PRECONDITIONING AND MOISTURE CONTENT

FIRA International cannot validate date of manufacture and therefore it is assumed that at least 4 weeks has elapsed between date of manufacture and delivery to FIRA.

Unless otherwise stated on the first page of this report the sample was stored in indoor ambient conditions for at least the minimum duration as required by this standard prior to test.

Wherever possible timber moisture content is verified prior to test. Where this is not possible the moisture content is assumed to be in the range 8 – 12 %.



TECHNICAL REPORT

BS EN 16121: 2013 +A1: 2017 Non-Domestic Storage Furniture – Requirements for Safety, Strength, Durability and Stability

The tests required were carried out in accordance with the standard. Where applicable details of the loads applied and their positions of application are retained at FIRA International and are available on request.

The tests were carried out in accordance with the standard, and the clause references of BS EN 16122: 2013 +A1: 2017.

Item: Gratnells Callero Double Trolley

Initial Inspection: No apparent faults

Clause	Test	Result
5	General safety requirements (Clause Ref: BS EN 16121: 2013)	
5.2	No burrs or sharp edges.	Pass
5.2	No open-ended tubes.	Pass
5.2	Movable parts – safety distances.	Pass
5.2	Unintentional loosening of load bearing parts.	Pass
5.2	Lubricated components.	N/A
5.2	Roll front (vertical).	N/A
5.2	No pinching of feet.	N/A
5.2	Drawer open stops.	N/A
5.2	External vertical glass \leq 900 mm.	N/A
5.3.1	Shear and squeeze (setting up and folding).	N/A
5.3.2	Shear and squeeze (powered mechanisms).	N/A
5.3.3	Shear and squeeze (during use).	Pass
5.4	Hinged horizontal lids.	N/A
5.5	Vertical glass component	N/A

In extreme weather conditions the ambient test temperature and/or humidity may fall outside the requirements of the standard. Such changes have not been shown to affect the validity of the results. Details of the ambient conditions at time of test are available on request.



TECHNICAL REPORT

BS EN 16121: 2013 +A1: 2017 Non-Domestic Storage Furniture – Requirements for Safety, Strength, Durability and Stability

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Item: Gratnells Callero Double Trolley

Initial Inspection: No apparent faults

Clause	Test	Result
5.6	Stability (Clause Ref: EN 16122: 2012)	
11.2.1	Doors, extension elements and flaps closed, unit unloaded ($\leq 1000\text{mm}$).	N/A
11.2.2	Doors, extension elements and flaps closed, unit unloaded ($> 1000\text{mm}$).	Pass
11.4.1	Doors, extension elements and flaps opened.	Pass
11.4.2	All storage areas unloaded with overturning load.	Pass
11.4.3	All storage areas loaded with overturning load.	Pass
11.5	Doors, extension elements and flaps locked (loaded).	N/A
11.6	Dynamic stability for units with castors.	Not Tested

Clause	Test	Result
7	Information for use (Clause Ref: BS EN 16121: 2013)	
7a	Information regarding the intended use, reference to test severity where appropriate;	Not Supplied
7b	Assembly instructions, where applicable;	Not Supplied
7c	Instructions for care and maintenance of the storage furniture, where applicable.	Not Supplied

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Item: Gratnells Callero Double Trolley

Initial Inspection: No apparent faults

Clause	Test	Result
5.7	Structural safety (Clause Ref: BS EN 16122: 2012)	
6.2.2	Static load test for tops and bottoms.	Pass
6.1.2	Shelf retention (horizontal outward).	N/A
6.1.3	Shelf retention (vertical downward).	N/A
6.1.5	Strength of shelf supports.	N/A
7.1.2	Vertical load of pivoted doors.	N/A
7.1.3	Horizontal load of pivoted doors.	N/A
7.3.1	Strength of bottom hinged flaps.	N/A
7.5.2	Strength of extension elements.	Pass
7.5.4	Slam open and shut of extension elements.	Pass
7.5.6	Interlock test.	N/A
6.4.1	Strength of carcass and underframe.	Pass
6.4.3	Test for unit with castors or wheels.	Not Tested
10.1.3	Overload.	N/A
10.1.4	Dislodgement test.	N/A
10.2	Floor standing units.	N/A

In extreme weather conditions the ambient test temperature and/or humidity may fall outside the requirements of the standard. Such changes have not been shown to affect the validity of the results. Details of the ambient conditions at time of test are available on request.



TECHNICAL REPORT

BS EN 16121: 2013 +A1: 2017 Non-Domestic Storage Furniture – Requirements for Safety, Strength, Durability and Stability

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The tests were carried out in accordance with the standard, and the clause references of BS EN 16122: 2013 +A1: 2017.

Item: Gratnells Callero Double Trolley

Initial Inspection: No apparent faults

Clause	Test	Result
6.1	Strength and durability (Clause Ref: BS EN 16122: 2012)	
6.3.1	Strength of clothes rail supports.	N/A
9.1	Strength of coat hooks.	N/A
7.1.5	Durability of pivoted doors.	N/A
7.1.4	Slam shut of pivoted doors.	N/A
7.2.2	Slam shut/open of sliding doors and horizontal roll fronts.	N/A
7.2.3	Durability of sliding doors.	N/A
7.2.3	Durability of horizontal roll fronts.	N/A
7.3.2	Durability of flaps.	N/A
7.4.2	Durability of vertical roll fronts.	N/A
7.5.3	Durability of extension elements.	N/A
7.5.3	Durability of trays.	Pass ^o
7.5.4	Slam open and shut of extension elements.	Pass
7.5.5	Displacement of extension element bottoms.	Pass
7.6.2	Strength of locking and latching mechanisms (extension elements).	N/A
7.6.3	Strength of locking and latching mechanisms (doors, flaps and roll fronts).	N/A
6.1.4	Deflection of shelves.	N/A
6.3.2	Dislodgement of clothes rails.	N/A
8.3	Drop test for trays.	Pass
8.2	Sustained load test for trays.	Pass

^oUpon completion of the test it was noted that a large amount of sediment had been produced from the tray grinding on the runners.



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BS EN 16121:2013 +A1: 2017 Non-Domestic Storage Furniture – Requirements for Safety, Strength, Durability and Stability

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Item: Gratnells Callero Double Trolley

Initial Inspection: No apparent faults

Clause	Test	Result
5.7	ANNEX A – Modifications for Schools, Kindergartens and Similar Applications	
A.2.2	Shear and squeeze points.	Not Tested
A.2.3	Safety principles.	Not Tested
A.2.4	General safety.	Not Tested
A.2.5	Shear and squeeze points under the influence of powered mechanisms.	N/A
A.2.6	Shear and squeeze points during use.	Not Tested
A.2.7	Glass.	N/A
A.2.8	Stability.	Not Tested
A.2.9	Strength and durability – drop test for trays.	Not Tested
A.3	Finger entrapment.	Not Tested

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TECHNICAL REPORT

Calculation Details

	Average Drawer Load				LOAD Kg
	Width	Depth	Height	Kg/dm ³	
Tray Load	275mm	370mm	145mm	0.2Kg/dm ³	3

	Max Drawer Load				LOAD Kg
	Width	Depth	Height	Kg/dm ³	
Sustained Load Trays	275mm	370mm	145mm	1.0Kg/dm ³	15

CONCLUSION

The Gratnells Callero Double Trolley, as previously described, successfully satisfied the applicable test requirements of BS EN 16121: 2013 +A1: 2017 Test Level 2 – Excluding Clauses 5.7.1.12, 5.6.7 & 7.

Tested by:

J Viccars

Reported by:

B Southam

Approved by:

L Haines



Section Head - Structural Testing



TECHNICAL REPORT



*****End of Report*****