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Fürth, December 15/2021

TEST REPORT No. FUHLFP2021-03421-M

This modified test report replaces invariably test report No. FUHLFP2021-03421 from November 26/2021

Date sample received: April 19/2021
Period of testing: April 19/2021 – November 26/2021
Technical Director: Kerstin Scharrer

Test Item: Chair model name RBM ANA
4340 4340S 4340SR

Test: General safety tests to EN 1729-1:2015 and EN 1729-2:2015

Determination:

In Summary, the requirements of the test order **were fulfilled**. The marking requirements according to EN 1729-1 were not fulfilled

The reference model "4340" was tested standing in for the complete stool model range.

Notes:

Refer to the following pages for technical characteristics and results as well as detailed test conditions and requirements.

Reviewed by:
Intertek Consumer Goods GmbH



Lab Manager Hardlines
Frank Urbich

Tested by:
Intertek Consumer Goods GmbH



Technical Expert
Tobias Reißmann

Product identification:

Test sample:	Chair
Model name:	RBM Ana
Item number:	4340, 4340S, 4340SR
Manufacturer:	Flokk AS, Vallatan 1,57123 Nässjö, Sweden
Number of test samples:	1 sample 4340
Distributor:	Flokk
Delivered on:	22.07.2021
Delivered by:	Flokk

Product documents:

User Guide, Product specification sheet and Product marking

Scope of the investigations:

EN 1729-1:2015, Furniture - Chairs and tables for educational institutions –
Part 1: Functional dimensions

EN 1729-2:2015, Furniture - Chairs and tables for educational institutions –
Part 2: Safety requirements and test methods

Test methods

EN 1728:2012,

EN 1022:2018

Abbreviations:

*	=	Test method is not part of the accreditation scope
**	=	Outsourcing
n.a.	=	not applicable
n.t.	=	not tested
n.d.	=	not determin.a.ble (< LoQ)
LoQ	=	limit of quantification
CS	=	Combined sample
P	=	passed
F	=	failed

Applicability of measurements:

The test results refer only to the objects to be tested. The digital images in this report are intended as supplementary information and are not an integral part of this test report.

Test equipment list

The test equipment list contains a list of the measuring tools used and measuring equipment, gauges, templates and load weights that were used in accordance with the scope of the investigations.

Testing machines and devices as well as any connections that are necessary for the performance of tests are not an integral part of the test equipment list.

The following test equipment were available for testing in accordance with the scope of the investigations:

Clause	Test equipment	Equipment no.
General tests	Ruler	PM_HL_18.321
General tests	Band ruler 3000 mm	PM_HL_18.367
General tests	Calliper	PM_HL_17.044
General tests	Radius template	PM_HL_18.450
Strength and durability tests	Load cell 5 kN	PM_HL_18.358
Strength and durability tests	Load cell 5kN	PM_HL_18.359
Strength and durability tests	Load cell 5kN	PM_HL_18.360
Strength and durability tests	Load cell 5 kN	PM_HL_18.361
Strength and durability tests	Load cell 2 kN	PM_HL_18.362
Strength and durability tests	Load cell 5,5 kN	PM_HL_18.363
Strength and durability tests	Seat dummy	PM_HL_18.199
Stability	Pull-Push-Gauge	PM_HL_17.026
Stability	Stability Table	PM_HL_18.107
Stability	Load disc 10 Kg	PM_HL_18.231
Stability	Load disc 10 Kg	PM_HL_18.232
Stability	Load disc 10 Kg	PM_HL_18.233
Stability	Load disc 10 Kg	PM_HL_18.234
Stability	Load disc 10 Kg	PM_HL_18.235
Loading point template - A-B	Measurement template	PM_HL_18.109
Strength and durability tests	Durability test stand	PM_HL_18.153
Strength and durability tests for castor	Linear axis test stand	PM_HL_18.066

General Testing

Technical characteristics

Model	4340
Depth (mm):	515
Height (mm):	825
Width (mm):	490
Net weight (kg):	3.7

Brief description of the sample:

Product description:

Chair with 4 Legs and Backrest
Stackable up to 12 chairs without upholstery (height: 1.83 m)
and 10 chairs with upholstery (height: 1.65 m)

Accessories/options

- Writing tablet in 12 mm beech or birch veneer
- Linking device, welded (black, alu-lacquer or chrome)
- Plastic linking device, black, detachable
- Felt glides
- Chair trolley with wheels

Material:

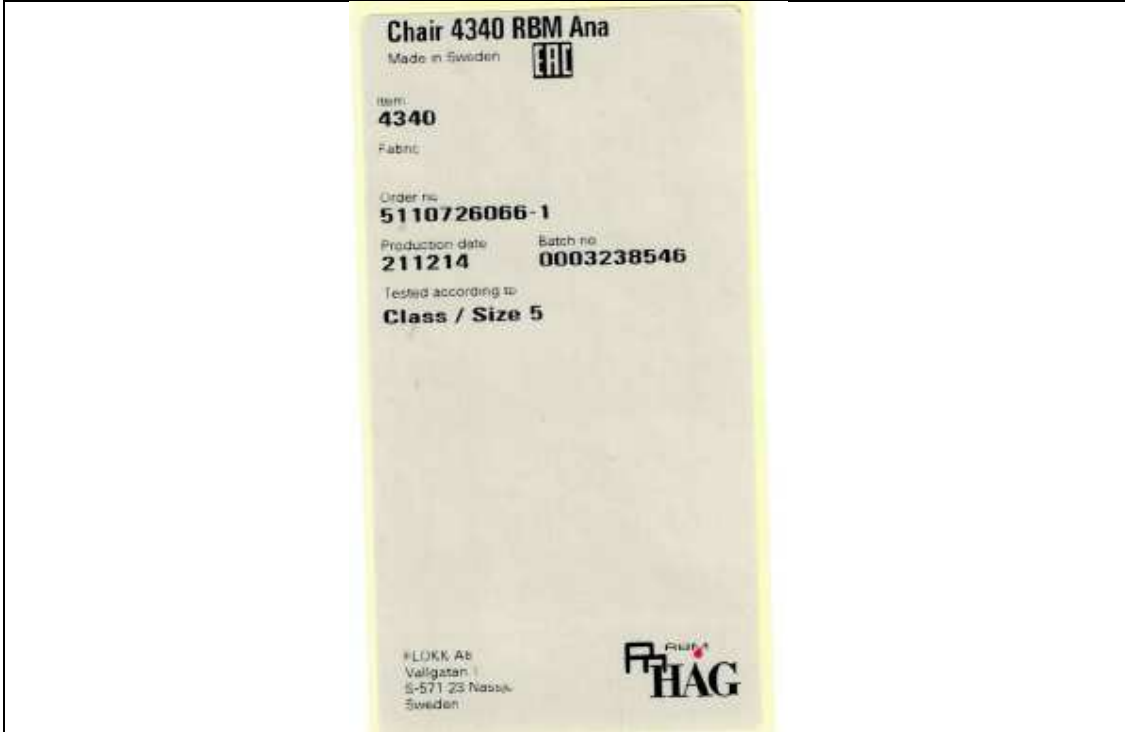
Polypropylene (PP) shell in various colours. Graphite colour in recycled PP;
Frame made of 19 x 1.5 mm 4 leg tubular steel frame

Photo documentation – mod. 4340



Pic.1: Total view

Pic.2: Side view



Pic.3: Label

2. Technical Tests

EN 1729-1:2015			
Clause	Test description	Actual results	Verdict
4	<p>Functional dimensions</p> <p>The functional dimensions and the correspondent size classes for chairs with a seat inclination of between -5° and $+7^\circ$ shall be within the allowed ranges.</p> <p>Chairs have to fulfill the dimensions requirements mentioned in the standard</p>	<p>Requirements met</p> <p>Please see page 7</p>	P
5	<p>Marking</p> <p>Chairs and tables shall be marked from 0 to 7 according to Annex A of the EN 1729-1:2015.</p> <p>The marking shall be permanently given and contain at least of the following information:</p> <ul style="list-style-type: none"> - Size class or color marking or both - Marking of adjustable furniture with all correspondent size classes - Name and/or registered name and/or company logo of the manufacturer - Date of production 	<p>marking of size available</p> <p>size class or color marking available</p> <p>Chair has no adjustment functions available</p> <p>available</p> <p>available</p>	<p>P</p> <p>P</p> <p>n.a.</p> <p>P</p> <p>P</p>

Table 1: Functional dimensions (all values in mm)

Description	Requirement Class / Size 5	Actual measurement	Verdict
h ₈ Seat height; ± 10	430 mm	430 mm	P
t ₄ Effective seat depth;	380 mm	430 mm	P
b ₃ Seat width, min.	360 mm	444 mm	P
x, Distance point S – backside of the backrest upholstery, max.	50 mm	259 mm	P
h ₇ Back rest height, min.	100 mm	400 mm	P
b ₄ Back rest width, min.	330 mm	438 mm	P
r ₂ Horizontal radius of the back rest, min.	300 mm	> 300 mm	P
α Seat inclination	-5° to +8°	4°	P
γ, Angle between seat and back	95° to 110°	96°	P
p Armrest height above the seat (-20/+10)	210 mm	/	n.a.
r Width between the armrests	420 mm – 470 mm	/	n.a.
q Distance backrest – armrest, max.	250 mm	/	n.a.
o Armrest width, min.	20 mm	/	n.a.
n Armrest length, min	80 mm	/	n.a.

EN 1729-1:2015			
Clause	Test description	Actual results	Verdict
6	Instructions	Requirements met	
	The instructions shall be delivered with the furniture in the official language(s) where the furniture is intended to be sold. It can be delivered with the sample, on a adhesive label, in a hand tag or in the user manual. It shall contain at least of the following information:	available	P
	a) Information of the size class: the information of the size class shall refer to this European standard (EN 1729-1:2015).	available	P
	b) Care and maintenance instructions	available	P
	c) Assembly instructions for furniture with adjustments, for a specified group of pupils	available	P
	d) Instructions how to operate the adjustment devices	available	P
e) Warning of an injury hazard if the furniture is equipped with a gas spring	No gas spring	n.a.	

EN 1729-2:2015			
Clause	Test description	Actual results	Verdict
4	Safety requirements	Requirements met	
	a) Radius of edges which are in direct contact with the user > 2 mm	Radius > 2 mm	P
	b) Edges of handles shall have a radius of > 2 mm	Radius > 2 mm	P
	c) All other edges chamfered / rounded	Edges chamfered / rounded	P
	d) Gaps and openings of accessible, movable parts of powered mechanism < 8 mm or > 25 mm	Gaps and openings < 8 mm or > 25 mm	P
	e) Moveable parts, except while folding and unfolding, shall be < 8 mm or > 25 mm	No other moveable parts	n.a.
	f) Adjustment devices shall not be unintentionally operated	There are no adjustment devices	n.a.
	g) No open tubular openings	No open tubular openings	P
	h) Parts shall not be removable without a tool	No parts are removable	n.a.
	i) Lubricated parts shall be covered	No lubricant part available	n.a.
	j) The finishing of the work surface shall not exceed silk-matt	No work surface	n.a.
	k) Chairs shall not overturn acc. to 5.2	No overturning acc. to 5.2	P
	l) Chairs shall show no defects which affects the safety and no loss of function after the test acc. to 5.3	no defects which affects the safety and no loss of function after the test acc. to 5.3	P
	m) Tables shall not overturn acc. to 7.2 of EN 1730	No table	n.a.
n) Tables shall show no defects which affects the safety and no loss of function after the test acc. to 6.2 of EN 1730	No table	n.a.	

Table 2: Safety tests to EN 1729-2

Test and sequence	Reference	Parameters	Units and values for Class 5	Verdict
1.Stability forwards	EN 1729-2:2016, 5.2.2	Seat force, N Horizontal Force, N;	600 20	P (F = 66 N)
2a. Stability sideways (without armrests)	EN 1729-2:2016, 5.2.3.1	Seat force, N Armrest force, N Horizontal Force, N	600 -- 20	P (F = 94 N)
2b. Stability sideways (with armrests)	EN 1729-2:2016, 5.2.3.2	Seat force, N Armrest force, N Horizontal Force, N	250 350 20	n.a.
3a. Stability backwards	EN 1729-2:2016, 5.2.4	Seat force, N Backrest force, N;	600 180	P
3b. Stability backwards with inclinable backrests	EN 1729-2:2016, 5.2.5	Number of load discs	13	n.a.
4. Seat and back static load test	EN 1728:2012, 6.4	Cycles Seat force; N; Back force; N:	10 1600 410	n.a.
5. Seat and back durability test	EN 1728:2012, 6.17	Cycles = 10 Seat force; N; Back force; N:	-- 2000 700	n.a.
6.Seat front edge durability test	EN 1728:2012, 6.18	Cycles Force; N:	50 000 800	P
7. Sideways static load test	EN 1728:2012, 6.16	Cycles Seat force; N; Sideways force; N:	10 1600 600	P
8. Forwards static load test	EN 1728:2012, 6.15	Cycles Seat force; N; Sideways force; N:	10 1600 600	P
9. Seat impact test	EN 1728:2012, 6.24	Cycles Drop height, mm	10 300	P
10. Back impact test	EN 1728:2012, 6.25	Cycles Drop height, mm	10 620	P
11. Drop test	EN 1728:2012, 6.27.3	Cycles Drop height, mm	5 600	P
12. Footrest durability test	EN 1728:2012, 6.21	Cycles Vertical force, N	50 000 1000	n.a.
13. Armrest downwards static load test	EN 1728:2012, 6.11	Cycles Force; N:	10 900	n.a.

Page	Type of change
1	Test result got changed to pass. The correct label is placed
3	added the correct label
8	Test result got changed to pass. The correct label is placed

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