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Fürth, October 07/2021

TEST REPORT No. FUHLFP2021-08735

Date sample received: July 22/2021
Period of testing: July 22/2021 – September 15/2021
Technical Director: Kerstin Scharrer

Test Item: Office stool / visitor chair RBM NOOR models:

Footbase
6070
6075

Test: General safety tests to EN 16139 achieve the GS Mark

Determination:

Essential components of the tests were the safety, functionality, fitness-for-use and ergonomic properties. Basis of the tests were the following references: EN 16139:2013 + AC:2013 (Level 1) and considering the current state of the art of technique.

The reference models "6070 and 6075" were tested.

In summary, the test requirements **were fulfilled**.

Notes:

The accessibility and selection of used materials does not propose a risk in accordance with PAH requirements for GS (see document AfPS GS 2019:01 PAH), and PAH Evaluation Sheet FUHLFP2021-08735-PAH.

Reviewed by:
Intertek Consumer Goods GmbH



Lab Manager Hardlines
Frank Urbich

Tested by:
Intertek Consumer Goods GmbH



Technical Expert
Tobias Reißmann

25/10-21





Total Quality. Assured.

Product identification:

Test sample:	Office work chair
Model n.a.me:	RBM Noor
Item number:	Footbase 6070 6075
Manufacturer:	Flokk AS, Vallgatan 1,57123 Nässjö , Sweden
Number of test samples:	1 sample of 6070,6075
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 16139:2013 + AC:2013, Office furniture - Office work chair –
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.

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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
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	6075
Depth (mm):	490
Height (mm):	892
Width (mm):	470
Net weight (kg):	7.5

Brief description of the sample:

Office work chair with/without armrest, including following features:
6-8 mm polypropylene (PP) or 6.7 mm 3D veneer shell,
in various colours

- Seat mechanism and footbase in black painted aluminum, optionally polished aluminum or white painted aluminum
- Standard gas lift 150 mm black painted, white painted for white footbase is optional



Photo documentation – mod. 6075



General Testing

Technical characteristics:

General dimensions:

Model	6070
Depth (mm):	490
Height (mm):	892
Width (mm):	470
Net weight (kg):	7.9

Brief description of the sample:

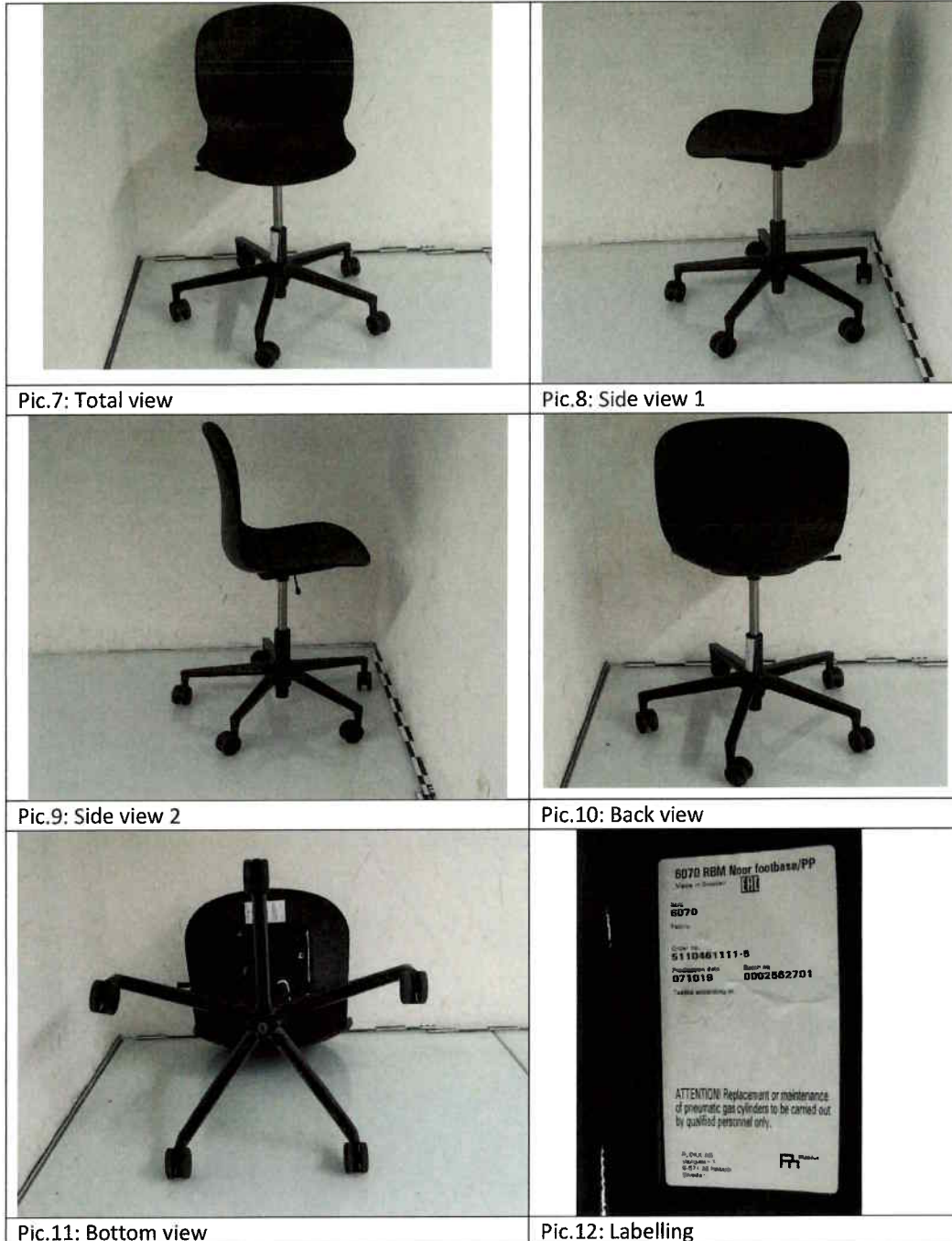
Office work chair with/without armrest, including following features:

6-8 mm polypropylene (PP) or 6.7 mm 3D veneer shell,
in various colours

- Seat mechanism and footbase in black painted aluminium, optionally polished aluminium or white painted aluminium
- Standard gas lift 150 mm black painted, white painted for white footbase is optional



Photo documentation – mod.6070



Test characteristics/requirements	Test parameters/results	Findings
<p>Safety requirements according to EN 16139:2013</p> <p>4. Safety requirements</p> <p>4.1. General</p> <p>The seating shall be so designed as to minimise the risk of injury to the user.</p> <p>All accessible parts (3.1) shall be so designed that physical injury and damage are avoided.</p> <p>This requirement is met when:</p> <ul style="list-style-type: none"> a) accessible corners are rounded or chamfered; b) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded or chamfered; c) the edges of handles are rounded or chamfered in the direction of the force applied; d) all other edges are free from burrs and rounded or chamfered; e) the ends of hollow components are closed or capped. <p>Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall not be possible for any load bearing part of the seating to come loose unintentionally.</p> <p>All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.</p> <p>4.2. Shear and squeeze points</p> <p>4.2.1 Shear and squeeze points when setting up and folding</p> <p>Unless 4.2.2 or 4.2.3 are applicable, shear and squeeze points that are created only during setting up and folding, including tipping seat actions, are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain.</p>	<p>fulfilled</p> <p>fulfilled</p> <p>fulfilled</p> <p>corners rounded / chamfered</p> <p>edges rounded / chamfered</p> <p>edges rounded / chamfered</p> <p>edges rounded / chamfered</p> <p>edges rounded / chamfered</p> <p>edges rounded / chamfered</p> <p>fulfilled</p> <p>fulfilled</p> <p>fulfilled</p> <p>no shear and squeeze points existing</p>	<p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p> <p>P</p>



Test characteristics/requirements	Test parameters/results	Findings
<p>The edges of parts moving relative to each other and creating shear and squeeze points shall be as specified in 4.1.</p>	noted	
<p>4.2.2 Shear and squeeze points under influence of powered mechanism</p>		
<p>With the exception of tipping seats there shall be no shear and squeeze points created by parts of the seating operated by powered mechanisms, e.g. springs and gas lifts.</p>	fulfilled	P
<p>4.2.3 Shear and squeeze points during use There shall be no shear and squeeze points created by forces applied during normal use as well as during normal movements and actions, see Table 1.</p>	fulfilled	P
<p>4.3 Stability</p>		
<p>4.3.1 General</p>		
<p>The seating shall not overturn under the following conditions:</p>	fulfilled	
<p>a) by pressing down on the front edge of the seat surface in the median plane (3.8);</p>	seating did not overturn	P
<p>b) by applying a load on the seat surface via the front corner;</p>	seating did not overturn	P
<p>c) by leaning sideways on a with or without arm rests;</p>	seating did not overturn	P
<p>d) by leaning against the back rest;</p>	seating did not overturn	P
<p>e) by sitting on the front edge of the seat;</p>	seating did not overturn	P
<p>f) by loading the foot rest.</p>	seating did not overturn	P
<p>4.3.2 Swiveling chairs</p>		
<p>The seating shall fulfil the relevant requirements of EN 1022</p>	requirements of EN 1022 fulfilled	P
<p>4.4 Rolling resistance of the unloaded chair</p>		
<p>This sub clause is only applicable to single seating units fitted with castors or wheels.</p>		
<p>The unloaded seating shall not roll unintentionally.</p>		



Test characteristics/requirements	Test parameters/results	Findings
<p>This requirement is met when:</p> <ul style="list-style-type: none"> - the rolling resistance is ≥ 12 N when tested in accordance with EN 1022 and - all castors are of the same type. 	F = 15 N	P
<p>4.5 Safety of the construction</p> <p>The following tests described in Clause 6, Table 1 are considered to be relevant to safety: Test No.: 1, 2, 4, 6, 7, 8, 9, 10, 12, 13, 14. Seating is considered to satisfy the safety requirements if, on completion of the relevant tests, the chair satisfies all requirements of Clause 5.</p>	noted	
	fulfilled	P
<p>5 Safety, strength and durability requirements</p> <p>The chair shall be constructed to ensure that it does not create a risk of injury to the user of the chair under the following conditions:</p> <ul style="list-style-type: none"> - sitting on the seat, both centrally and off-centre; - moving forward, backwards, and sideways while sitting in the chair; - leaning over the arm rests; - pressing down on the arm rests while getting up from the chair. <p>These safety, strength and durability requirements are fulfilled when during and after testing in accordance with Table 1 :</p>	no risk created under the below conditions	P
a) there are no fractures of any member, joint or component;	fulfilled	P
b) there are no loosening of joints intended to be rigid;	no fracture	P
c) no major structural element is significantly deformed;	no loosening of joints	P
d) the chair fulfils its functions after removal of the test loads.	no significant deformation	P
The stability requirements are fulfilled when after testing in accordance with Table 1 the seating does not overturn.	functions given after the test loads	P
	stability given after testing	P



Test characteristics/requirements	Test parameters/results	Findings
<p>6 Test methods</p> <p>Seating shall be tested on the same sample for safety, strength and durability according to Table 1 and following the order listed in Table 1.</p> <p>The guidance for selecting level L 1 or L2 with due respect for the end use of the product is given in Annex B.</p> <p>7 Information for use</p> <p>Information for use shall be available in the language of the country in which it will be delivered to the end user. It shall contain at least the following details:</p> <ul style="list-style-type: none"> a) information regarding the intended use (see Annex B); b) if the chair is fitted with adjusting mechanisms: instruction for operating the adjusting mechanisms; c) assembly instructions, where applicable; d) instruction for the care and maintenance of the chair; e) if the seating is fitted with castors: information on the choice of castors in relation to the floor surface; f) if the seating is fitted with adjustment mechanisms comprising an energy accumulator, an additional note is required pointing out that only instructed personnel may replace and maintain adjustment mechanisms containing energy accumulators. 	<p>noted</p> <p>noted</p> <p>fulfilled</p>	<p>P</p>



Table 1:
Safety, strength and durability tests for Model 6070 according to EN 16139

Test and sequence	Reference	Loading ^a	Level	Result
			L1	Level1
1.Seat and back static load test	EN 1728:2012, 6.4	Seat: Force, N Back: Force, N; 10 times	1600 560(min force 410)	P
2.Seat front edge static load test	EN 1728:2012, 6.5	Force, N 10 times	1300	P
3.Vertical static load on back ^b	EN 1728:2012, 6.6	Force, N Seat load, N, 10 times	600 1300	n.a.
4.Foot rest and leg rest static load test	EN 1728:2012, 6.8, 6.9	Force, N 10 times	1300	n.a.
5.Arm sideways static load test	EN 1728:2012, 6.10	Force, N 10 times	400	n.a.
6.Arm downwards static load test	EN 1728:2012, 6.11	Force, N 5 times	750	n.a.
7.Vertical upwards static load on arm rests	EN 1728:2012, 6.13.1, 6.13.2	Seat load, N Lift 10 times, during ≥10 s	250 or lift stack with max. 8 chairs of max 25kg	n.a.
8.Seat and back durability test	EN 1728:2012, 6.17	Cycles Seat: 1000N; Back ^c : 300N	100 000	P
9.Seat front edge durability test	EN 1728:2012, 6.18	Cycles Force: 800N	50 000	P
10. Arm durability test	EN 1728:2012, 6.20	Cycles Force: 400N	30 000	n.a.
11. Foot rest durability test	EN 1728:2012, 6.21	Cycles Force: 1000N	50 000	n.a.
12. Leg forward static load test	EN 1728:2012, 6.15	Force, N Seat load, N; 10 times	500 1000	n.a.
13. Leg sideways static load test	EN 1728:2012, 6.16	Force, N Seat load, N; 10 times	400 1000	n.a.
14.Seat impact test	EN 1728:2012, 6.24	Drop height, mm 10 times	240	P
15.Back impact test	EN 1728:2012, 6.25	Height of fall, mm/° 10 times	210/38	P
16. Arm impact test	EN 1728:2012, 6.26	Height of fall, mm/° 10 times	210/38	n.a.
17. Drop test (multiple seating)	EN 1728:2012, 6.27.1	Drop height, mm 2x5 times	N/A	n.a.
18.Auxiliary writing surface static load test	EN 1728:2012, 6.14	Force, N 10 times	300	n.a.
19. Auxiliary writing surface durability test	EN 1728:2012, 6.22	Cycles Force: 150N	10 000	n.a.

^a Seat load on parts not undergoing test: 750N
^b The test is only applicable for chairs without head/neck rest and for chairs with a height of the backrest <1000mm above ground
^c No minimum force defined

Test	EN 1728	Loading	Level 1	Verdict
Drop test for stacking seating	6.27.1	Drop height	10 times of 210 mm	n.a.
Backward fall test	6.28	cycles	5	n.a.
Drop test from the height of a table	6.27.3	Front leg: Rear leg:	5 times with 600 mm 5 times with 600 mm	n.a. n.a.



Table 2:
Safety, strength and durability tests for Model 6075 according to EN 16139

Test and sequence	Reference	Loading ^a	Level	Result
			L1	Level1
1.Seat and back static load test	EN 1728:2012, 6.4	Seat: Force, N Back: Force, N; 10 times	1600 560(min force 410)	P
2.Seat front edge static load test	EN 1728:2012, 6.5	Force, N 10 times	1300	P
3.Vertical static load on back ^b	EN 1728:2012, 6.6	Force, N Seat load, N, 10 times	600 1300	n.a.
4.Foot rest and leg rest static load test	EN 1728:2012, 6.8, 6.9	Force, N 10 times	1300	n.a.
5.Arm sideways static load test	EN 1728:2012, 6.10	Force, N 10 times	400	n.a.
6.Arm downwards static load test	EN 1728:2012, 6.11	Force, N 5 times	750	n.a.
7.Vertical upwards static load on arm rests	EN 1728:2012, 6.13.1, 6.13.2	Seat load, N Lift 10 times, during ≥10 s	250 or lift stack with max. 8 chairs of max 25kg	n.a.
8.Seat and back durability test	EN 1728:2012, 6.17	Cycles Seat: 1000N; Back ^c : 300N	100 000	P
9.Seat front edge durability test	EN 1728:2012, 6.18	Cycles Force: 800N	50 000	P
10. Arm durability test	EN 1728:2012, 6.20	Cycles Force: 400N	30 000	n.a.
11. Foot rest durability test	EN 1728:2012, 6.21	Cycles Force: 1000N	50 000	n.a.
12. Leg forward static load test	EN 1728:2012, 6.15	Force, N Seat load, N; 10 times	500 1000	n.a.
13. Leg sideways static load test	EN 1728:2012, 6.16	Force, N Seat load, N; 10 times	400 1000	n.a.
14.Seat impact test	EN 1728:2012, 6.24	Drop height, mm 10 times	240	P
15.Back impact test	EN 1728:2012, 6.25	Height of fall, mm/ ^o 10 times	210/38	P
16. Arm impact test	EN 1728:2012, 6.26	Height of fall, mm/ ^o 10 times	210/38	n.a.
17. Drop test (multiple seating)	EN 1728:2012, 6.27.1	Drop height, mm 2x5 times	N/A	n.a.
18.Auxiliary writing surface static load test	EN 1728:2012, 6.14	Force, N 10 times	300	n.a.
19. Auxiliary writing surface durability test	EN 1728:2012, 6.22	Cycles Force: 150N	10 000	n.a.

^a Seat load on parts not undergoing test: 750N
^b The test is only applicable for chairs without head/neck rest and for chairs with a height of the backrest <1000mm above ground
^c No minimum force defined

Test	EN 1728	Loading	Level 1	Verdict
Drop test for stacking seating	6.27.1	Drop height	10 times of 210 mm	n.a.
Backward fall test	6.28	cycles	5	n.a.
Drop test from the height of a table	6.27.3	Front leg: Rear leg:	5 times with 600 mm 5 times with 600 mm	n.a. n.a.



Table 3: Measurement table according to EN 16139 for Model 6070,

Measurement range	Symbol						Measured value	Verdict
		allowed (-)	Min.	Max.	allowed (+)	Min. range		
Seat height and sitting height fixed	a	no	400	500	no	/	/	n.a.
Seat height and sitting height adjustable		yes	420	480	yes	/	355 mm -490 mm	P
depth of the seat	b	yes	380	470	yes	/	428 mm	P
Seat pad width	d	no	400	-	yes	/	426 mm	P
Distance between arm rests	r	no	460	-	yes	/	/	n.a.

Table 4 Model 6075 Measurement table according to EN 16139

Measurement range	Symbol						Measured value	Verdict
		allowed (-)	Min.	Max.	allowed (+)	Min. range		
Seat height and sitting height fixed	a	no	400	500	no	/		
Seat height and sitting height adjustable		yes	420	480	yes	/	355 mm -490 mm	P
depth of the seat	b	yes	380	470	yes	/	428 mm	P
Seat pad width	d	no	400	-	yes	/	426 mm	P
Distance between arm rests	r	no	460	-	yes	/	/	n.a.



Table 5: Loads, Masses and Cycles of stability tests according to EN 1022 for Model 6070,

Test description	Loads	Result	Cycles	Verdict
Overturning over the front corner	M ₁ = 30 kg	300 N	1	P
Overturning over the front edge	F ₁ = 600 N F ₂ = 20 N	F ₂ = 43 N	1	P
Overturning over the front edge for seating with footrest	F ₁ = 600 N F ₂ = 20 N	--	1	n.a.
Overturning over the side edge for seating without armrests	F ₁ = 600 N F ₂ = 20 N	F ₂ = 106 N	1	P
Overturning over the side edge for seating with armrests	F ₁ = 250 N F ₂ = 350 N F ₃ = 20 N	--	1	n.a.
Overturning backwards for seating with backrest inclination	F ₁ = 600 N F ₂ = If seating Height < 720 mm (0,2857 * (1 000 -Seating height in mm If seating height > 720 mm F ₂ = 80 N	F ₂ = 178 N	1	P
tilting backrest	13 load discs	13 load discs	1	n.a.

Table 6: Loads, Masses and Cycles of stability tests according to EN 1022 for Model 6075

Test description	Loads	Result	Cycles	Verdict
Overturning over the front corner	M ₁ = 30 kg	300 N	1	P
Overturning over the front edge	F ₁ = 600 N F ₂ = 20 N	F ₂ = 61 N	1	P
Overturning over the front edge for seating with footrest	F ₁ = 600 N F ₂ = 20 N	--	1	n.a.
Overturning over the side edge for seating without armrests	F ₁ = 600 N F ₂ = 20 N	F ₂ = 120 N	1	P
Overturning over the side edge for seating with armrests	F ₁ = 250 N F ₂ = 350 N F ₃ = 20 N	--	1	n.a.
Overturning backwards for seating with backrest inclination	F ₁ = 600 N F ₂ = If seating Height < 720 mm (0,2857 * (1 000 -Seating height in mm If seating height > 720 mm F ₂ = 80 N	F ₂ = 131 N	1	P
tilting backrest	13 load discs	13 load discs	1	n.a.

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END OF REPORT

