Intertek Consumer Goods GmbH · Würzburger Straße 152 · 90766 Fürth · Germany

Flokk Røros
Sundveien 201
7374 Røros
Norway

Fürth, 31 January 2025

TEST REPORT No. FUHLFP2024-05687-02

Date sample received: 06 August 2024
Period of testing: 06 August 2024 – 31 January 2025
Technical Director: Kerstin Scharrer

Test Item: Conference / Visitor chair FAN series

Test: General and mechanical safety tests according to EN 16139 – level 1

Determination:

The conference chair FAN series: “10H”, “10HS”, “10F”, “10E”, “10R”, “10V”, “20V”, “10HW”, “10Z” and “10HC” have been tested in accordance with EN 16139 (test level 1) and the current state of the art.

In summary, the general and mechanical safety requirements **were met**.

Technical data and results as well as detailed test conditions and requirements are contained in the following pages.

Reviewed by:

Intertek Consumer Goods GmbH

Laborleitung Hardlines / Lab Manager Hardlines
Frank Urbich

Tested by:

Intertek Consumer Goods GmbH

Sachverständiger / Technical Expert
Anh Vu (Vincent) Nguyen

Product identification:

Test sample:	Conference / Visitor
Model name:	“10H”, “10HS”, “10F”, “10E”, “10R”, “10V”, “20V”, “10HW”, “10Z” and “10HC”
Item number:	--
Manufacturer:	Flokk sp.z.o.o UL Górnicza 8 62-700 Turek Poland
Number of test samples:	1 of each model
Distributor:	Flokk AS
Delivered on:	30.01.2024
Delivered by:	Flokk sp.z.o.o

Product documents:

Instructions for use

Scope of the investigations:

- EN 16139:2013 + AC:2013- Furniture - Strength, durability, and safety - Requirements for non-domestic seating.

Legend:

Abbreviations:

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

Applicability of test results:

Tolerances unless otherwise specified the following tolerances apply:
The tests specify the use of forces. However, masses may be used. In that case, as equivalent for 10 N a mass 1 kg can be calculated.
The test results refer solely to the samples tested.
The digital pictures shown in this report are for additional information only and are not part of this 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 test	Ruler	PM_HL_18.321
General test	Scale	PM_HL_18.314
General test	Band ruler 3000 mm	PM_HL_18.376
General test	Calliper	PM_HL_17.070
Strength and durability test	Load cell 5 kN	PM_HL_18.358
Strength and durability test	Load cell 5kN	PM_HL_18.359
Strength and durability test	Load cell 5kN	PM_HL_18.360
Strength and durability test	Load cell 5 kN	PM_HL_18.361
Strength and durability test	Load cell 2 kN	PM_HL_18.362
Strength and durability test	Load cell 5,5 kN	PM_HL_18.363
Strength and durability test	Seat dummy	PM_HL_18.199
Stability	Pull-Push-Gauge	PM_HL_17.026
Stability	Stability Table	PM_HL_18.107
Stability	Protractor	PM_HL_18.226
Stability	Stamp	PM_HL_18.108
Stability	Armrest stamp	PM_HL_18.051
Stability	Load disc 10 Kg	PM_HL_18.234
Stability	Load disc 10 Kg	PM_HL_18.233
Stability	Load disc 10 Kg	PM_HL_18.235
Stability	Load disc 10 Kg	PM_HL_18.238
Stability	Load disc 10 Kg	PM_HL_18.230
Stability	Load disc 5 Kg	PM_HL_18.369
Stability	Load disc 2,5 Kg	PM_HL_17.345
Stability	Load disc 0,5 Kg	PM_HL_18.263
Stability	Load disc (wood)	PM_HL_18.216
Stability	Load disc (wood)	PM_HL_18.217
Stability	Load disc (wood)	PM_HL_18.218
Stability	Load disc (wood)	PM_HL_18.219
Stability	Load disc (wood)	PM_HL_18.220
Stability	Load disc (wood)	PM_HL_18.221
Stability	Load disc (wood)	PM_HL_18.222
Stability	Load disc (wood)	PM_HL_18.223
Stability	Load disc (wood)	PM_HL_18.224
Stability	Load disc (wood)	PM_HL_18.225

Clause	Test equipment	Equipment no.
Stability	Load disc (wood)	PM_HL_18.226
Stability	Load disc (wood)	PM_HL_18.227
Stability	Load disc (wood)	PM_HL_18.228
Stability	Load disc (wood)	PM_HL_18.229
Loading point template - A-B	Measurement template	PM_HL_18.109

General Testing

Technical characteristics

General dimensions

Parameters	10H	10HS	10F	10E		
Depth (mm):	600	600	700	660		
Height (mm):	860	860	860	810 – 910		
Width (mm):	670	670	700	720		
Net weight (kg):	16.5	16.5	17.5	18.0		

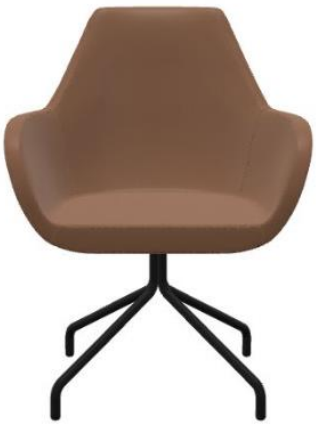
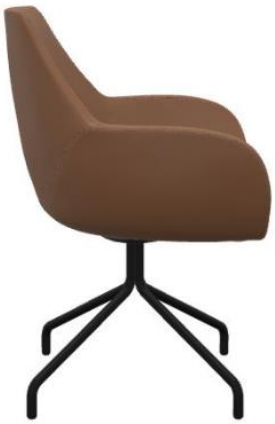
Parameters	10R	10V	20V	10HW	10Z	10HC
Depth (mm):	600	620	620	600	660	600
Height (mm):	860	850	850	870	840 - 940	860
Width (mm):	670	670	1170	670	720	670
Net weight (kg):	23.0	17.0	16.8	9.5	12.0	10.5

Product description:

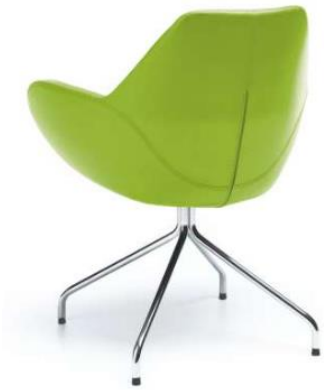
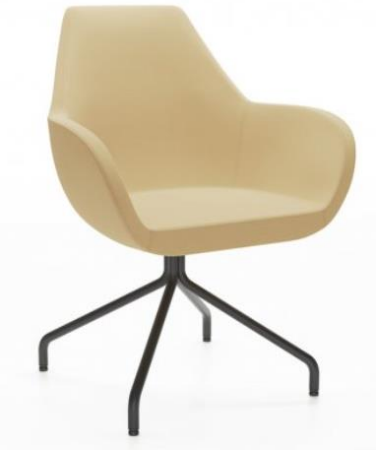
Upholstered visitor chair models of FAN series with different bases (5-star base, 4 leg wood, sledge, 4 leg metal, Foot plate with return spindle).

Photo documentation:

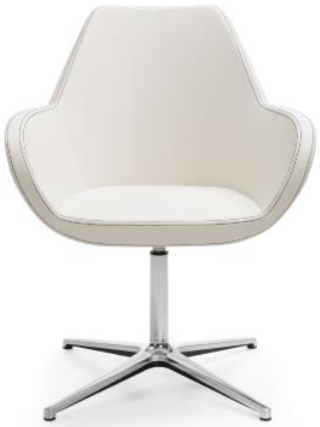
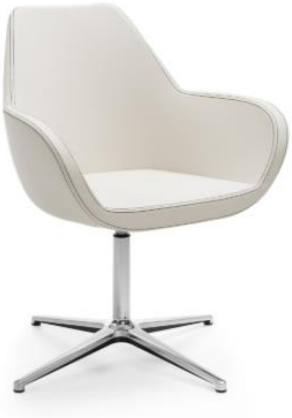
Model 10H

	
Pic.1: View I	Pic.2: View II

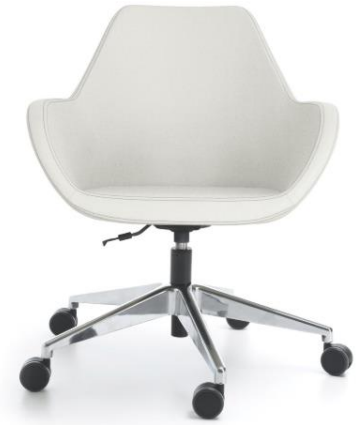
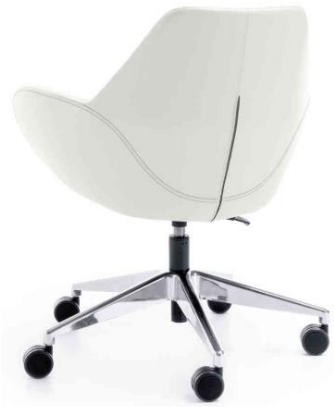
Model 10HS

	
Pic.3: View I	Pic.4: View II

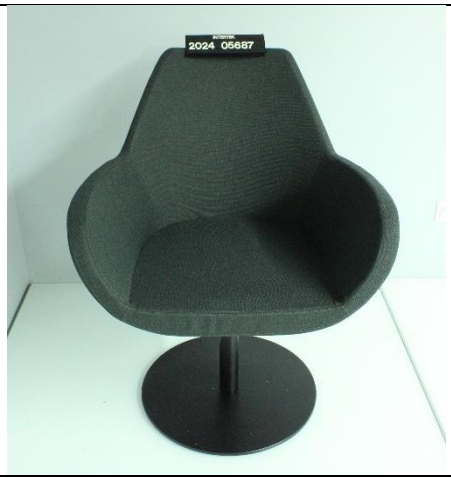
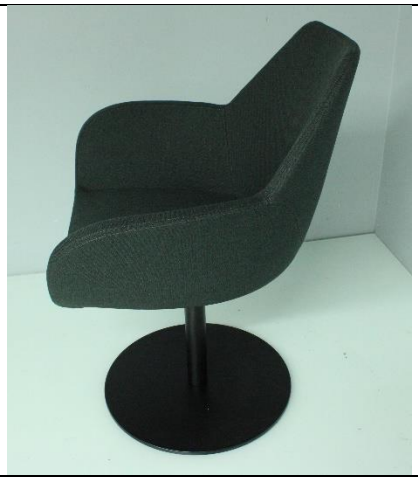
Model 10F

	
Pic.5: View I	Pic.6: View II

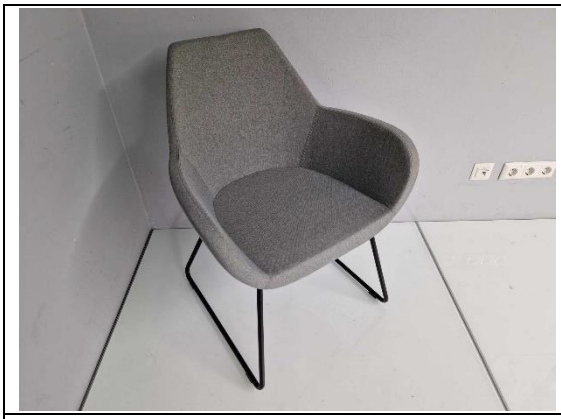
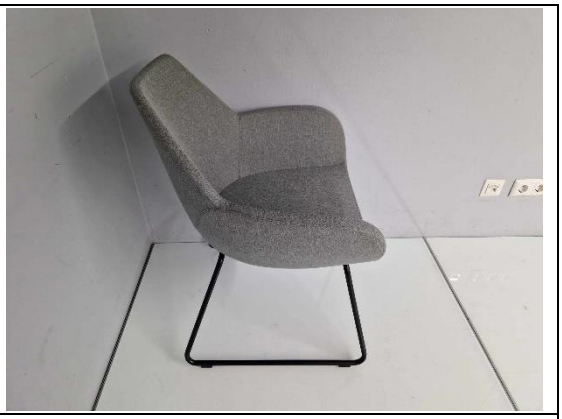
Model 10E

	
Pic.7: View I	Pic.8: View II

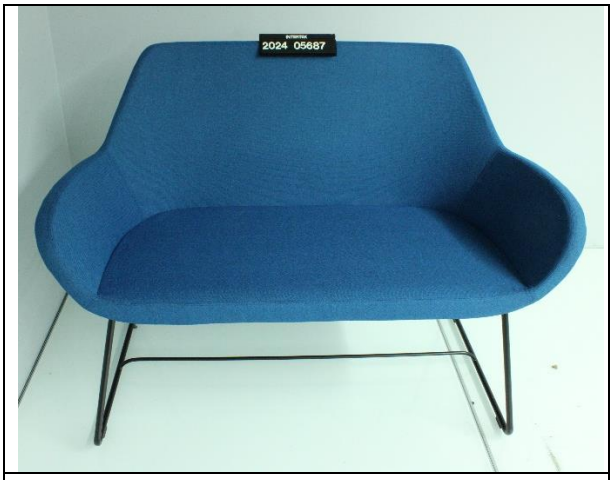
Model 10R

	
Pic.9: View I	Pic.10: View II

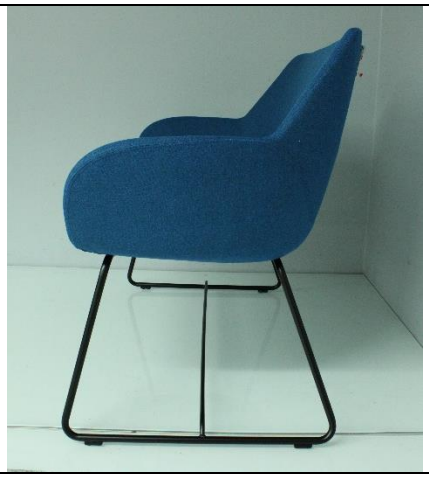
Model 10V

	
Pic.11: View I	Pic.12: View II

Model 20V

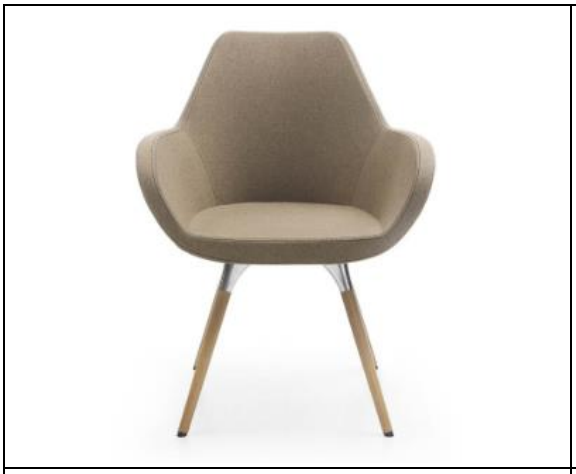


Pic.13: View I

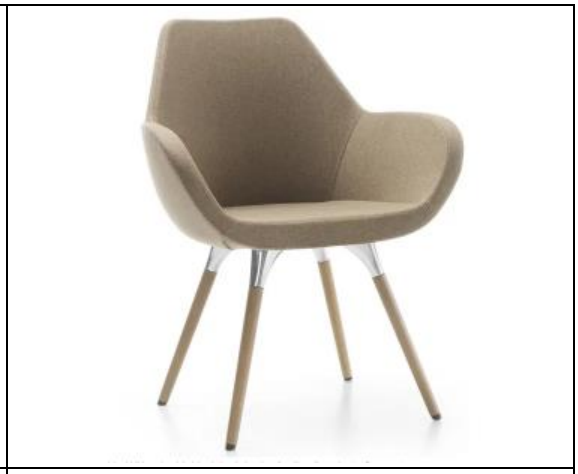


Pic.14: View II

Model 10HW

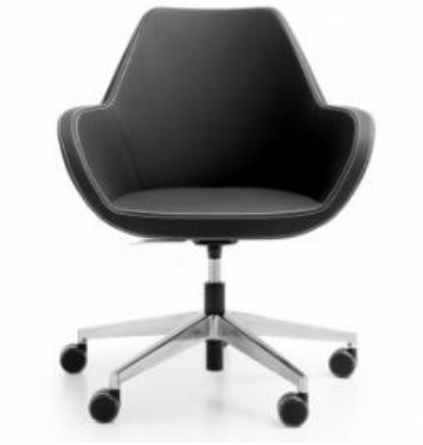
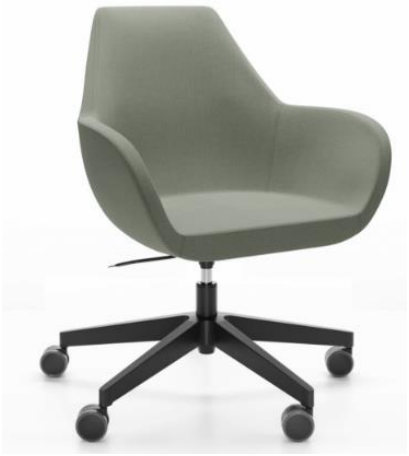


Pic.15: View I

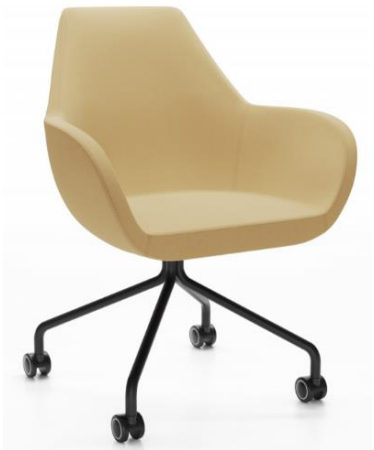
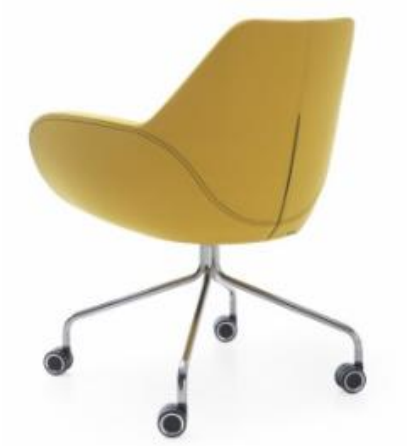


Pic.16: View II

Model 10Z

	
Pic.17: View I	Pic.18: View II

Model 10HC

	
Pic.19: View I	Pic.20: View II

Technical Tests

Test method/Requirements	Test parameter/Results	Verdict
Strength, durability, and safety according to EN 16139:2013, Level 1		
Safety		
The seating shall be so designed, that the injury risk of the user is minimized.		
All accessible components shall be so designed, that a physical injury and other hazards are avoided.		
This requirement is fulfilled, if:		
a) all accessible corners are rounded or chamfered;	All accessible corners are rounded and chamfered	P
b) the edges of the seat, back and armrest which the user is in contact with during sitting, are rounded or chamfered;	mentioned edges are rounded or chamfered	P
c) the edges of the handles in direction of the application are rounded or chamfered;	No handle	n.a.
d) all other edges are free of burrs, rounded or chamfered	No burrs	P
e) ends of hollow tubulars are covered or capped.	Open hollow tubulars components are covered	P
Movable and adjustable components are so designed, that injuries and unintended operation are avoided.	No moveable nor adjustable parts	P
No load bearing component of the seating shall get loosened which is intended to be rigid.	No loosened load bearing component	P
All components, which are lubricated for a better gliding, shall be so designed, that the user is protected against soiling during intended use.	Protected against soiling	P

Note: None

Test method/Requirements	Test parameter/Results	Verdict
4.2 Shear and squeeze points		
4.2.1 Shear and squeeze points when setting up and folding		
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. The edges of parts moving relative to each other and creating shear and squeeze points shall be as specified in 4.1.	No setting up or folding	n.a.
4.2.2 Shear and squeeze points under influence of powered mechanism		
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.	No shear and squeeze points	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	No shear and squeeze points	P
Stability		
The seating shall not overturn under the following conditions:		
a) by pressing down on the front edge of the seat surface in the median plane;	No overturn	P
b) by applying a load on the seat surface via the front corner;	No overturn	P
c) by leaning sideways on an item of seating with or without arm rests;	No overturn	P
d) by leaning against the back rest;	No overturn	P
e) by sitting on the front edge of the seat;	No overturn	P
f) by loading the foot rest.	No footrest	n.a.
The requirement is considered to be met if the seating complies with EN 1022:2018.		
Note: None		

Test method/Requirements	Test parameter/Results	Verdict
Safety of the construction		
The following tests described in 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.	See table 1	P
Safety, strength and durability requirements		
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: - 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.		
These safety, strength and durability requirements are fulfilled when during and after testing in accordance with Table:	See table 1	
a) there are no fractures of any member, joint or component;	no fracture	P
b) there are no loosening of joints intended to be rigid;	no loosening	P
c) no major structural element is significantly deformed;	no significant deformation	P
d) the chair fulfils its functions after removal of the test loads.	full functioning	P
The stability requirements are fulfilled when after testing in accordance with Table 1 the seating does not overturn.	no overturn after testing	P
Note: None		

Table 1: Safety, strength and durability tests

Test	EN 1728	Loading[a]	Level 1	Verdict
Seat and back static load test	6.4	Seat Back	10 times with 1.600 N 10 times with 560 N	P P
Static load test	6.5	Seat front edge	10 times with 1.300 N	P
Vertical static load on back[b]	6.6	Seat load Back	1.300 N 10 times with 600 N	P
Static load test	6.8	Foot rest/leg rest	10 times with 1.300 N	n.a.
Sideways static load test	6.10	Arm rests	10 times with 400 N	P
Downwards static load test	6.11	Arm rests	5 times with 750 N	P
Vertical upwards static load	6.13	Seat load Arm rests	250 N 10 times	P
Seat and back durability test	6.17	Seat Back[c]	100.000 cycles with 1.000 N 100.000 cycles with 300 N	P P
Durability test	6.18	Seat front edge	50.000 cycles with 800 N	P
Durability test	6.20	Arm rests	30.000 cycles with 400 N	p
Durability test	6.21	Foot rest / leg rest	50.000 cycles with 1.000 N	n.a.
Leg forward static load test	6.15	Seat load Legs	1.000 N 10 times with 500 N	p
Leg sideways static load test	6.16	Seat load Legs	1.000 N 10 times with 400 N	p
Seat impact test	6.24	Drop height	10 times of 240 mm	P
Back impact test	6.25	Height of fall Fall angle	10 times of 210 mm or 10 times of 38°	P
Arm impact test	6.26	Height of fall Fall angle	10 times of 210 mm or 10 times of 38°	p
Drop test (multiple seating)	6.27.1	Drop height	2 x 5 times of 450 mm[d]	n.a.
Static load test	6.14	Auxiliary writing surface	10 times with 300 N	n.a.
Durability test	6.22	Auxiliary writing surface	10.000 cycles with 150 N	n.a.

[a] Seat load on parts not undergoing test: 750 N.
[b] The test is only applicable for chairs without head/neck rest and for chairs with a height of the backrest < 1 000 mm above ground
[c] No minimum force defined
[d] only level 2

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: Loads, Masses and Cycles of stability tests

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 > 25 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	--	1	n.a.
Overturning over the side edge for seating with armrests	F_1 = 250 N F_2 = 350 N F_3 = 20 N	F_3 > 25 N	1	P
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 = 158 N	F_2 > 250 N	1	P
tilting backrest	13 load discs	13 load discs	1	P

Test method/Requirements	Test parameter/Results	Verdict
User manual	**Requirements met**	
The user manual has to be provided in the language of the country, in which the seating is distributed to the end-user. It shall contain at least the following information:	Chairs available by specialist shop	
a) Intented use;	office use	P
b) Instructions for the use of adjustment features, if applicable	available	P
c) Assembling instruction, if applicable;	no assembly required	P
d) Maintenance instructions;	across homepage	P
e) If the chair is equipped with castors: Instructions on the choice of castors related to the floor covering;	across homepage	P
f) If the chair is equipped with an energized seat height adjustment feature an additional information is required, that only trained professionals may change or repair the energized seat height adjustment feature.	no height adjustment feature	n.a.
Note: None		

General note:

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END OF REPORT