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

Flokk AS
Drammensveien 145,
0277 Oslo,
Norway

Fürth, 13 November 2025

TEST REPORT No. FUHLFP2025-02669

Date sample received: 29 April 2025
Period of testing: 29 April 2025 – 13 November 2025
Technical Director: Kerstin Scharrer

Test Item: **"**Circulus" series

Test: Safety tests to EN 16139, test level 1

Determination:

The "Circulus" series, selected samples "SB111" and "1OT010" have been submitted for testing in accordance with EN 16139 (test level 1) and the current state of the art.

The submitted model "SB111" (3-Seater with high backrest) and "1OT010" (3-Seater with one center low backrest) does represent all characteristics of the whole "Circulus" sofa series which also includes further models "SB300", "SB201", "SB120", "1OT200", "1OT020", "1OT110", "1OT011", "1OT101", "RB1R1", "RB20R", "RBR20", "RB11RB", "RBR11", 2OT100", "2OT001", "3OT000", "1OTR01", "1OT10R", "1OT01R", "1OT0R1" , "1OT1R0", "SB11" , "SB20", "RBR1", "RB1R", "1OT10", "1OTR0", "1OT0R" and "2OT00".

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:	Upholstered armchair / sofa
Model name:	Circulus
Manufacturer:	Flokk sp.z.o.o UL Górnicza 8 62-700 Turek Poland
Number of test samples:	1 piece of “SB111” and “1OT010”
Distributor:	Flokk AS
Delivered on:	29.04.2025
Delivered by:	Flokk sp.z.o.o

Product documents:

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Scope of the investigations:

General test
Technical test

Standards for test methods:

- EN 1728:2012/AC:2013-09E Furniture - Seating - Test methods for the determination of strength and durability
- EN 1022:2023 Furniture - Seating - Determination of stability

Standards for requirements:

EN 16139:2025 Furniture - Strength, durability and safety - Requirements for non-domestic seating

Remark: Standards with requirement profiles cannot be accredited in the sense of the DAkkS.

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.

General Testing

Technical characteristics

General dimensions

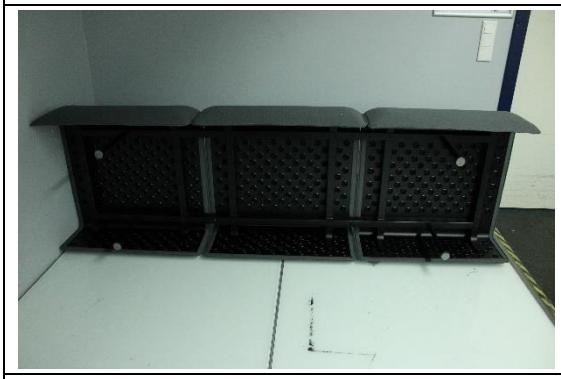
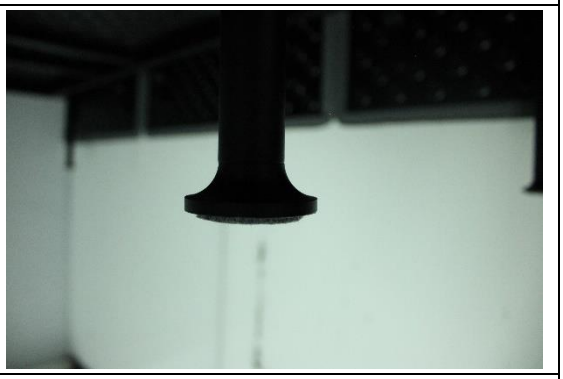
Parameter	SB111	1OT010
Width (mm):	2440	2440
Depth (mm):	790	790
Height (mm):	1290	790
Seat angle (°):	0	0
Seat height (mm):	430	430
Seat depth (mm):	550	550
Seat pad width (mm):	2440	2440
Armrest width (mm):	200	--
Armrest height (mm):	590	--
Hip breadth clearance (mm):	--	--
Backrest height (mm):	860	360
Net weight (kg):	98	54.5

Product description:

Upholstered seating system available in a wide range of configurations as follows

- Available with low or high backrests
- Configurable as single-, double-, triple-, or backless seating units
- Armrests available in multiple positions:
    - For 3-seater models: single or dual armrests between seats
    - For 2-seater models: single armrest in the middle position
- Additional option is coffee tables in round or square shape

Photo documentation:

	
Pic.1: Total view	Pic.2: Front view
	
Pic.3: Bottom view	Pic.4: Leg and glider

Technical Tests

Test method/Requirements	Test parameter/Results	Verdict
Safety, strength and durability to EN 16139		
General requirements The seating shall be designed so as to minimize the risk of injury to the user. All parts of the seating with which the user comes into contact during intended use, shall be designed so that physical injury and damage are avoided. edges and corners of the seating which are directly in contact with the user are rounded or chamfered; all other edges and corners accessible during intended use are free from burrs and/or sharp edges. 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. For chairs for non-residential use, see Appendix G (informative) which provides recommended dimensions for chairs for non-residential use.	Requirements fulfilled	
Holes and tubular/rigid components There shall be no holes in the ends of tubular components or holes in rigid components in accessible parts between 8 mm and 12 mm, unless the depth of penetration is less than 10 mm. This requirement is fulfilled if there is no hazard present when tested.	Requirements fulfilled	
Shear and compression points The requirements contained within 4.3.2, 4.3.3 and 4.3.4 do not apply to electrically operated furniture.	Requirements fulfilled	
Shear and compression points when setting up and folding Unless 4.3.3 or 4.3.4 are applicable, shear and compression points that are created only during setting up and folding 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 compression points shall be as specified in 4.1.	Requirements fulfilled	

Note: *The requirements for electrically operated furniture will be provided in EN 17684 which is under preparation.*

Test method/Requirements	Test parameter/Results	Verdict
Shear and compression points under influence of non-electrically powered mechanisms With the exception of operation of doors, flaps, lids and extension elements, there shall be no areas where the distance between two accessible parts moving relative to each other can be less than 25 mm, and more than 8 mm in any position during movement that could present a risk of injury to the user, created by parts of the furniture operated by powered mechanisms, e.g. mechanical springs and gas lifts. This requirement is fulfilled if there is no hazard present when tested in accordance with A.2.2.	Requirements fulfilled	
Shear and compression points during use With the exception of operation of doors, flaps, lids and extension elements, there shall be no areas where the distance between two accessible parts moving relative to each other can be less than 18 mm, and more than 8 mm in any position that could present a risk of injury to the user, created by loads applied during normal use. The loads used for durability tests within Table 1 are considered representative of normal use. This requirement is fulfilled if there is no hazard present when tested in accordance with A.2.3.	Requirements fulfilled	
Stability The seating shall fulfil the relevant requirements of EN 1022 after having completed the relevant tests listed in Table 1.	Requirements fulfilled	
Strength and durability Seating shall be tested on the same sample for safety, strength and durability according to and in the order given in Table 1 and in accordance with the test conditions contained in EN 1728:2012. Seating with a seat and back made of one piece of flexible material suspended in the upper part of the backrest and the front of the seat shall be tested according to Annex D. For this type of seating, only the tests on seat shall be carried out.	Requirements fulfilled	
Note: *Further guidance of the accessible parts is given in CEN/TR 17202.*		

Table 1: Safety, strength and durability tests

No.	Test	Application	Reference	Test parameters	Level		Resultate (L1)
					L1	L2	
1.	Seat static and back static load test[a]	alle	EN 1728 Pkt. 6.4	Sitzfläche, Kraft, N Rückenlehne, Kraft, N Cycles	1600 560 10	2000 700 10	**P**
2.	Seat front edge static load test[a,e]	all	EN 1728, 6.5	Force, N Cycles	1300 10	1600 10	**P**
3.	Vertical static load on back[a,b]	all	EN 1728, 6.6	Force, N Seat load, N Cycles	600 1300 10	900 1800 10	**P**
4.1	Footrest static load test[a,d]	all	EN 1728, 6.8	Force, N Minimum seat force, N Minimum seat force, N Cycles	1300 750 1600 10	1600 750 2000 10	**n.a.**
4.2	Leg rest static load test[a]	all	EN 1728, 6.9	Force, N Cycles	1300 10	1600 10	**n.a.**
5.	Arm rest sideways static load test[a]	all	EN 1728, 6.10	Force, N Cycles	400 10	900 10	**P**
6.	Arm rest downwards static load test	all	EN 1728, 6.11	Force, N Cycles	750 5	900 5	**P**
7.1	Vertical upwards static load on arm rests	For seating which intended to be moved when occupied	EN 1728, 6.13.1	Seat force, N Lift times during ≥ 10s	-	1200 10	**n.a.**
7.2	Vertical upwards static load on arm rests	Stacking seating	EN 1728, 6.13.2	Specified load, kg Lift times during ≥ 10s	Weight of 8 chairs with a maximum of 25 kg		**n.a.**
8.	Combined seat and back durability test[a]	all	EN 1728, 6.17	Saet, N Back, N Cycles	1000 300 100000	1000 300 200000	**P**
9.	Seat front edge durability test[a,f]	all	EN 1728, 6.18	Force, N Cycles	800 40000	800 80000	**P**
10.	Seat side-to-side durability test	Single column	Annex B	Force, N (Min. Force, 800 N) Cycles	1100 10000	1100 20000	**n.a.**
11.	Arm rest durability test	all	EN 1728, 6.20	Force, N Cycles	400 30000	400 60000	**P**
12.	Footrest durability test	all	EN 1728, 6.21	Seat force, N Footrest force, N Cycles	1000 1000 30000	1000 1000 60000	**n.a.**
13	Leg rest durability test	all	Annex C	Force, N (Min. Force, 800 N) Cycles	1000 10000	1000 20000	**n.a.**

No.	Test	Application	Reference	Test parameters	Level		Resultate (L1)
					L1	L2	
14.	Leg forward static load test	Not on swivelling single column seating	EN 1728, 6.15	Force, N Minimum force, N Seat load, N Cycles	500 150 1000 10	620 200 1800 10	**P**
15.	Leg sideways static load test	Not on swivelling single column seating	EN 1728, 6.16	Force, N Minimum force, N Seat load, N Cycles	400 150 1000 10	620 200 1800 10	**P**
16.	Seat impact test	all	EN 1728, 6.24	Drop height, mm Cycles (fixed seat height) Cycles (adjustable seat height) in highest position in lowest position	240 1 5 5	300 10 5 5	**P**
17.	Backward fall test	all	EN 1728, 6.28	Number of impacts	5	5	**n.a.**
18.	Back impact test[c]	all	EN 1728, 6.25	Height of fall, mm/° Cycles	210/38 10	330/48 10	**P**
19.	Arm rest impact test	all	EN 1728, 6.26	Height of fall, mm/° Cycles	210/38 10	330/48 10	**P**
20.	Drop test (multiple seating)	all	EN 1728, 6.27.1	Height of fall, mm 2 x times	n.a.	450	**n.a. / P** [g)]
21.	Auxiliary writing surface static load test	all	EN 1728, 6.14	Force, N Cycles	300 10		**n.a. / P** [g)]
22.	Auxiliary writing surface durability test	all	EN 1728, 6.22	Force, N Cycles	150 10000	150 20000	**n.a. / P** [g)]

a For multiple seating, not undergoing test shall be loaded with 750 N.
b The test is only applicable for seating without head and neck rest and for seating with a height of the top of the backrest < 1000 mm above the ground. If the backrest is height adjustable, test is carried out with the highest position of the top of the backrest, less than 1000 mm from the ground.
c This test is for all seating not tested in accordance with Test 17.
d In derogation to EN 1728:2012 if the item overturns when the maximum seat force is applied, reduce the footrest downward force to a magnitude that just prevents forward overturning. Record the actual force used.
e In derogation to EN 1728:2012 the load shall be applied at the geometrical centre of the front supporting frame
f In derogation to EN 1728:2012 the distance from the front edge for the positioning of the front loads shall be at half the width of the front supporting frame

g Only applicable for applicable configurations

Test method/Requirements	Test parameter/Results	Verdict
Requirements a) there are no fractures of any member, joint or component; b) there is no loosening of joints intended to be rigid; c) seating fulfils its functions after removal of the test loads; d) seating fulfils the stability requirements.	Requirements fulfilled	
Note: *None*		

Table 2: Stability

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 > 30	1	P
Overturning over the front edge for seating with footrest	F_1 = 600 N F_2 = 20 N	-	-	n.a.
Overturning over the side edge for seating without armrests	F_1 = 600 N F_2 = 20 N	F_2 > 30 N	1	P
Overturning over the side edge for seating with armrests	F_1 = 250 N F_2 = 350 N F_3 = 20 N	F_2 > 30 N	1	n.a.
Overturning backwards for seating with backrest inclination	F_1 = 600 N F_2 = 174 N[A]	-	-	n.a.
Tilting backrest	13 load discs	-	-	n.a.

[A] = 0,2857 x (1000 – H)
H = distance of the loaded seat to the floor, in millimeters

Test method/Requirements	Test parameter/Results	Verdict
User manual	**Requirements fulfilled**	
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	P
a) Intended use.	available	
b) Instructions for the use of adjustment features, if applicable	available	
c) Assembling instruction, if applicable.	not necessary	
d) Maintenance instructions.	available	
e) If the chair is equipped with castors: Instructions on the choice of castors related to the floor covering.	available	
f) If the chair is equipped with an energized seat height adjustment features an additional information is required, that only trained. professionals April change or repair the energized seat height adjustment feature.	available	
g) For stacking chairs, maximum number of chairs which can be stacked and how to move them.	No stacking function	
Note: *None*		

Table F1: Level of severity in relation to applications

Level	Type of use	Range of application
L1	General use	Areas in which seating is usually intended for mixed use (short-time and for a period of several hours). Examples of end-use: all kind of applications in office buildings, showrooms, public halls, function rooms, cafés, restaurants, canteens, banks, bars.
L2	Extreme use	Areas in which seating is occasionally or repeatedly subject to extremely high loads due to their specific types of use or due to improper use. Examples of end-use: night-clubs, police stations, transport terminals, sport changing rooms, prisons, barracks.

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