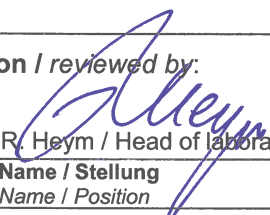


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Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2016-02-11	
Auftraggeber: <i>Client:</i>	Back App Europe AB Box 68, 33432 Anderstorp, Sweden			
Prüfgegenstand: <i>Test item:</i>	Alternative seating			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	BackApp2.0			
Auftrags-Inhalt: <i>Order content:</i>	Mechanical safety and durability			
Prüfgrundlage: <i>Test specification:</i>	DIN EN 1335-1, DIN EN 1335-2, DIN EN 1335-3 (DIN EN 1335-1: 2002-08, Office furniture - Office work chair - Part 1: Dimensions - Determination of dimensions; DIN EN 1335-2: 2010-01, Office furniture - Office work chair - Part 2: Safety requirements; DIN EN 1335-3: 2009-08, Office furniutre - Office work chair - Part 3: Test methods)			
Wareneingangsdatum: <i>Date of receipt:</i>	2016-03-14			
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000123092-001, -002, -003, -004, -005, -006, -007			
Prüfzeitraum: <i>Testing period:</i>	2016-04-04 – 2016-06-30			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland LGA Products GmbH			
Prüflaboratorium: <i>Testing laboratory:</i>	Furniture testing laboratory Nuremberg			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
2016-09-14	J. Lauterkorn / Expert	2016-09-14	R. Heym / Head of laboratory	
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other:	The requirements of decision AfPS GS 2014:01 regarding PAHs were considered. Currently neither a safeguard clause procedure has been invoked nor is an increase in accidents known for this / these product(s). All safety relevant tests were done. Further information see page 3. Further information see page 3.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel <i>Test equipment</i>	Prüfmittel-Nr. / ID-Nr. <i>Equipment No. / ID-No.</i>	Nächste Kalibrierung <i>Next calibration</i>
Vernier calliper	04841	16.07.2016
Tape measure	05013	30.11.2017
Loading pad for chairs	04902	21.06.2018
Height measure 1000 mm	05007	01.02.2018
Dimension measuring stand for chairs	04997	07.08.2017
Steel measure 500 mm	04996	01.02.2019
Steel measure 1000 mm	04859	01.02.2021
Stability test stand	09181	22.07.2017
Load for stability test stand	05004	22.07.2017
Rolling resistance test stand	04990	18.03.2017
Measurement device for chair base	04994	01.02.2017
Seat-Backrest testing machine	04888	28.01.2017
Base testing machine	04984	28.01.2017
Dynamometer	08979	24.04.2017
Electric-mechanical drop test machine	08643	04.05.2017

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Produktbeschreibung
Product description

Alternative seating "BackApp2.0"

Swivel chair without backrest and without armrests.

Seating height adjustable with gas spring (Stabilus STAB-O-MAT 4D, DIN 4550, 201 15).

Base made of die-cast aluminium. On the bottom side of the base a ring of plastic foam is attached. Movement of the chair is adjustable with a ball made of plastic which is screwable in different heights/positions.

Seat shell made of plastic. Seat is upholstered and covered with fabric. Taper fitting made of die-cast aluminium.

The seating can be put on an additional base with 3 load braked castors (Ø 50 mm) with 5 mm spacers. The castor base is made of die cast aluminium.

Dimensions (H x W x D) / Weight:

872 x 467 x 365 mm / 7,45 kg (without castor base)

Pic 1: Front view



Pic 2: Castor base



Pic 3: Bottom up view



Pic 4: Side view



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Absatz	DIN EN 1335-1, DIN EN 1335-2, DIN EN 1335-3	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

General information			
<p>The test report contents mechanical safety requirements based on DIN EN 1335-1, DIN EN 1335-2 and DIN EN 1335-3 as well as additional safety-related tests and requirements towards the state of the art. The tests acc. to the standards were divided in dimensional tests, safety strength tests and functional tests, a standard-independent numbering system was used. The content of the test basics was shortened. For details be referred to the original documents.</p>			
1	Determination of dimensions acc. to DIN EN 1335-1		
	<p>The chair shall provide support to the thighs and the lumbar region with sufficient depth and height to provide all users with a sitting position suited to their activity and their height. The dimension of the chair shall comply with type "A", "B" or "C".</p> <p>Details of measuring see appendix.</p>	<p>alternative seating. The dimension requirements are not applicable on this kind of seating.</p>	<p>P <input type="checkbox"/></p> <p>F <input type="checkbox"/></p> <p>N/A <input checked="" type="checkbox"/></p> <p>N/T <input type="checkbox"/></p>
2	General design requirements acc. to DIN EN 1335-2 cl. 4.1		
2.2	Corners and edges, trapping, pinching and shearing acc. to DIN EN 1335-2 cl. 4.1.1		
	<ul style="list-style-type: none"> - distance of accessible movable parts either ≤ 8 mm or ≥ 25 mm in any position during movement - accessible corners rounded with minimum 2 mm radius - edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair rounded with minimum 2 mm radius - edges of handles rounded with minimum 2 mm radius in the direction of the force applied - other edges free from burrs and rounded or chamfered - ends of accessible hollow components closed or capped 		<p>P <input checked="" type="checkbox"/></p> <p>F <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p> <p>N/T <input type="checkbox"/></p>
2.3	Adjusting devices acc. to DIN EN 1335-2 cl. 4.1.2		
	<p>Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall be possible to operate the adjusting devices from a sitting position in the chair.</p>		<p>P <input checked="" type="checkbox"/></p> <p>F <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p> <p>N/T <input type="checkbox"/></p>
2.4	Connections acc. to DIN EN 1335-2 cl. 4.1.3		
	<p>It shall not be possible for any load bearing part of the chair to come loose unintentionally.</p>		<p>P <input checked="" type="checkbox"/></p> <p>F <input type="checkbox"/></p> <p>N/A <input type="checkbox"/></p> <p>N/T <input type="checkbox"/></p>

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Absatz Clause	DIN EN 1335-1, DIN EN 1335-2, DIN EN 1335-3 Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse - Bemerkungen Measuring results - Remarks	Bewertung Evaluation
2.5	Avoidance of soiling acc. to DIN EN 1335-2 cl. 4.1.4		
	All parts which are lubricated to assist sliding (greasing, lubricating, etc.) shall be designed to protect users from lubricant stains when in normal use.		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
3	Stability acc. to DIN EN 1335-2 cl. 4.3, DIN EN 1335-3 cl. 7.1		
	Front edge overturning ≥ 27 kg	alternative seating. The requirements are not applicable on this kind of seating.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
	Forward overturning vertical load: 60 kg, horizontal force: ≥ 20 N		
	Sideways overturning without arms vertical load: 60 kg, horizontal force: ≥ 20 N		
	Sideways overturning with arms vertical load: 25/35 kg, horizontal force: ≥ 20 N		
	Rearwards overturning without back rest inclination vertical load: 60 kg, horizontal force: ≥ 192 N		
	Rearwards overturning with back rest inclination ≥ 13 discs		
	Stability of footrest vertical load: 110 kg, horizontal force: ≥ 20 N		
4	Rolling resistance of unloaded chair		
4.1	Rolling resistance of unloaded chair DIN EN 1335-2 cl. 4.4, DIN EN 1335-3 cl. 7.4		
	- all castors identical in construction - rolling resistance ≥ 12 N	alternative seating. The requirements are not applicable on this kind of seating. (load braked castors)	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
4.2	Additional rolling resistance of unloaded chair for GS-certification DIN EN 1335-2: 2002 cl. 4.4, DIN EN 1335-3: 2000 cl. 6.1, cl. 6.2		
	- all castors identical in construction - rolling resistance for castors type "H" ≥ 15 N - rolling resistance for castors type "W" ≥ 12 N - measuring of rolling resistance after durability test	alternative seating. The requirements are not applicable on this kind of seating. (load braked castors)	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>

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Absatz	DIN EN 1335-1, DIN EN 1335-2, DIN EN 1335-3	Messergebnisse - Bemerkungen	Bewertung
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5 Strength and durability tests acc. to DIN EN 1335-2 cl. 4.5

The requirements are fulfilled when after the tests acc. to DIN EN 1335-3 cl. 7.2.1, cl. 7.2.2, cl. 7.2.6, cl. 7.3.1 and cl. 7.3.2:

- there are no fractures of any member, joint or component
- there is no loosening of joints intended to be rigid
- no major structural element is significantly deformed
- the chair fulfils its functions after removal of the test loads and when after the test in 7.2.3 of DIN EN 1335-3 the arm rests show no fracture.

5.1 Seat front edge static load test DIN EN 1335-3 cl. 7.2.1

10 cycles 1600 N		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
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5.2 Seat and back static load test DIN EN 1335-3 cl. 7.2.2

10 cycles Seat: 1600 N Back: 560 N	Only seat	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
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5.3 Foot rest static load test DIN EN 1335-3 cl. 7.2.6

10 cycles 1300 N	no foot rest	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
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5.4 Seat and back durability DIN EN 1335-3 cl. 7.3.1

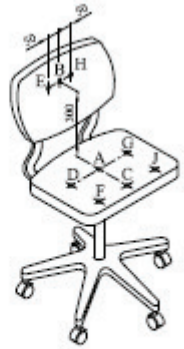


Table 2 — Seat and back durability test

Step	Loading point (see Figure 6)
1	A
2	C-B
3	J-E
4	F-H
5	D-G

Key
 A loading point "A" D loading point "D" G loading point "G"
 B loading point "B" E loading point "E" H loading point "H"
 C loading point "C" F loading point "F" J loading point "J"

All chairs shall be tested to steps 1 to 5 (see table 2).

Figure 6 — Loading points

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5.4.1	Seat and back durability - step 1		
	120 000 cycles Seat (Loading point "A"): 1500 N		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
5.4.2	Seat and back durability - step 2		
	Test performance acc. to DIN EN 1335-3 cl. 7.3.1 or DIN EN 1335-3: 2000 cl. 7.2, depending on higher stress for the construction of the chair. 80 000 cycles Seat (Loading point "C"): 1200 N Back (Loading point "B"): 320 N	Only seat	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
5.4.3	Seat and back durability - step 3		
	Test performance acc. to DIN EN 1335-3 cl. 7.3.1 or DIN EN 1335-3: 2000 cl. 7.2, depending on higher stress for the construction of the chair. 20 000 cycles Seat (Loading point "J"): 1200 N Back (Loading point "E"): 320 N	Only seat	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
5.4.4	Seat and back durability - step 4		
	Test performance acc. to DIN EN 1335-3 cl. 7.3.1 or DIN EN 1335-3: 2000 cl. 7.2, depending on higher stress for the construction of the chair. 20 000 cycles Seat (Loading point "F"): 1200 N Back (Loading point "H"): 320 N	Only seat	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
5.4.5	Seat and back durability - step 5		
	20 000 cycles Seat (Loading point "D" and "G"): 1200 N lateral alternating		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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5.5	Arm rest durability DIN EN 1335-3 cl. 7.3.2		
	60 000 cycles 400 N	no arms	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
5.6	Arm rest downward static load test - central DIN EN 1335-3 cl. 7.2.3		
	5 cycles 750 N	no arms	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
	5 cycles 900 N	no arms	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
6	Requirements for chairs with self-supporting gas spring		
6.1	Safety class of gas spring tube DIN 4550 cl. 5		
	Maximum permissible distance "u" between seat front edge and the center of the gas spring in accordance with safety class may not be exceeded.		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
6.2	General safety requirements DIN 4550: 2004 cl. 6.1		
	Self-supporting gas springs must have a tripping device on the face side and have to be made of one part in the load bearing area.		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
6.3	Gas spring taper DIN 4550 cl. 6.2, 6.3		
	- overlapping minimum 80 % - one-piece taper - radius minimum 1 mm at the bottom edge - taper with smooth surface		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
6.4	Durability test for self-supporting energized devices DIN 4550 cl. 7.2		
	Test certificate for durability test	LGA Certificate No.: 62723	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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6.5	Marking of gas spring DIN 4550 cl. 9		
	- manufacturer - type designation - classification - date of production (week / year)	Stabilus STAB-O-MAT 4D Day 201 / Year 15	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
6.6	Safety advice on the chair DIN 4550 cl. 9		
	Conspicuously warning advice near the gas spring in German with the following content: "Achtung! Austausch und Arbeiten im Bereich des Sitzhöhenverstellelementes nur durch eingewiesenes Personal." We recommend the safety advice also in the language of the country in which it will be delivered to the end user.		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
6.7	Self assembly EK 5 / AK 3: 01-04		
	The decision of EK 5 / AK 3: 01-04 for self assembly office workchairs shall be considered.		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
7	Functional tests acc. to DIN EN 1335-3		
7.1	Arm rest downward static load test - front DIN EN 1335-3 cl. 7.2.4		
	5 cycles 450 N	no arms	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
7.2	Arm sideways static load test DIN EN 1335-3 cl. 7.2.5		
	10 cycles 400 N	no arms	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
7.3	Swivel test DIN EN 1335 cl. 7.3.3		
	120 000 cycles Seat (Loading point "A"): 60 kg Seat (Loading point "C"): 35 kg	not safety relevant	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input checked="" type="checkbox"/>

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7.4	Foot rest durability DIN EN 1335-3 cl. 7.3.4		
	50 000 cycles 900 N	no foot rest	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
7.5	Castor and chair base durability DIN EN 1335-3 cl. 7.3.5		
	36 000 cycles Seat (Loading point "A"): 110 kg	not safety relevant	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input checked="" type="checkbox"/>
8	Information for use		
	<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"> - information regarding the intended use - information regarding possible adjustments and chair type - instruction for operating the adjusting mechanisms - instruction for the care and maintenance of the chair - information regarding all adjustments - information for chairs with seat height adjustments with energy accumulators that only trained personnel may replace or repair seat height adjustment components with energy accumulators - information on the choice of castors in relation to the floor surface 		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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Absatz <i>Clause</i>	DIN EN 1335-1, DIN EN 1335-2, DIN EN 1335-3 <i>Anforderungen - Prüfungen / Requirements - Tests</i>	Messergebnisse - Bemerkungen <i>Measuring results - Remarks</i>	Bewertung <i>Evaluation</i>
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9	Materials		
	<p>Materials and its combinations shall not be toxic, among others the following certificates are necessary:</p> <ul style="list-style-type: none"> - test certificate of harmful substances for wooden materials - test certificates of harmful substances for upholstery und cover materials - risk analysis for Polycyclic Aromatic Hydrocarbons (PAH) according to the valid ZEK requirement 		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
10	Marking towards ProdSG section 2 § 6		
	<p>Durable marking of product with name and contact address of manufacturer or importer and the product designation</p>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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ZUSATZ-DOKUMENTATION
ADDITIONAL DOCUMENTATION

12	Additional requirements for chairs with seating height above 650 mm acc. to DIN 68877: 1981		
12.1	Step-up rail DIN 68877 cl. 4.5		
	Step-up rail with a non slipping surface	alternative seating. No step up rail. The requirements are not applicable on this kind of seating.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
12.2	Stability test of step-up rail DIN 68 877 cl. 4.5		
	120 kg at the most adverse position of the step-up rail The chair may not overturn.	alternative seating. No step up rail. The requirements are not applicable on this kind of seating.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
12.3	Durability test of step-up rail DIN 68 877 cl. 5.6		
	80 000 cycles 1200 N After the test the function shall be unimpaired.	alternative seating. No step up rail. The requirements are not applicable on this kind of seating.	P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
12.4	Glides / break load-dependent castors DIN 68 877 cl. 4.8		
	Base with minimum 5 supporting points Glides or break load-dependent castors		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

Dimensions of the seating:
Seating height: 541 – 761 mm
Seating depth: 300 mm
Seating width: 467 mm
Base diameter: 600 mm