



# Test Report

Report No.: 751390-2

**Assignor:** Savir Design A/S  
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Page 1 of 1  
Laha/prni/hbs  
Order no.: 751390  
No. of appendices: 3

**Subject:** Model: Gate Student

Type:	Chair				
Length:	580 mm	Width:	620 mm	Height:	840 mm
Weight	5,8 kg				
Materials:	Plastic shell, 5 star metal foot				

**Sampling:** The test material was sampled by the client and received at the Danish Technological Institute 28-03-2017.

**Method:** **EN 1729-1:2015** Furniture – Chairs and tables for educational institutions - Part 1: Functional dimensions. Measured according to table A.1.

**EN 1729-2:2012+A1:2015** Furniture – Chairs and tables for educational institutions - Part 2: Safety requirements and test methods. Loading according to EN 1729-2:2012+A1:2015 highest level.

**Period:** The testing was carried out from 29-03-2017 to 26-04-2017.

**Result:** Model Gate Student fulfils the requirements in EN 1729-1:2015, Table A.1 and the requirements in EN 1729-2:+A1:2015.


Individual results appear from Appendices 1 and 2.

**Note:**  
**Storage:** The test material will be destroyed after 1 month, unless otherwise agreed.

**Terms:** The accredited test was carried out according to DANAK's general conditions see [www.danak.dk](http://www.danak.dk) and according to the General Terms and Conditions regarding Commissioned Work Accepted by the Danish Technological Institute, which apply at the time of signing the agreement. The test is only valid for the tested specimen. The test report may only be extracted, if the laboratory has approved the extract.


**Date/place:** 07-06-2017, Danish Technological Institute, Wood Technology, Taastrup

**Signature:** Test responsible



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Order no. 751390-2  
Appendix 1  
Page 1 of 3  
Initials laha/prni/hbs

## Testing of Model: Gate Student

### EN 1729-1:2015 – Table A.1 - Chair

Size mark	0	1	2	3	4	5	6	7
Colour code	White	Orange	Violet	Yellow	Red	Green	Blue	Brown
<b>Popliteal range (without shoes)</b>	200-250	250-280	280-315	315-355	355-405	405-435	435-485	485+
<b>Stature range (without shoes)</b>	800-950	930-1160	1080-1210	1190-1420	1330-1590	1460-1765	1590-1880	1740-2070
<b>h<sub>8</sub> Seat height ± 10</b>	210	260	310	350	380	430	460	510
<b>Measured</b>							460	
<b>t<sub>4</sub> Effective seat depth ± 15 mm (0-2) ± 25 mm (3-7)</b>	-	-	-	300	340	380	420	460
<b>Measured</b>							410	
<b>b<sub>3</sub> Seat width</b>	210	240	280	320	340	360	380	400
<b>Measured</b>							420	
<b>x Distance between Point S and back of seat pad (max.)</b>	-	-	-	30	30	50	50	50
<b>Measured</b>							N/A	
<b>h<sub>7</sub> Backrest height (min.)</b>	100	100	100	100	100	100	100	100
<b>Measured</b>							385	
<b>b<sub>4</sub>- Width of backrest (min.)</b>	-	-	-	260	270	300	330	360
<b>Measured</b>							402	
<b>r<sub>2</sub> Horizontal radius of backrest (min.)</b>	-	-	-	300	300	300	300	300
<b>Measured</b>							>300	
<b>α Inclination of seat (min.)</b>	-	-	-	-5° to +7°	-5° to +7°	-5° to +7°	-5° to +7°	-5° to +7°

Order no. 751390-2  
Appendix 1  
Page 2 of 3  
Initials laha/prni/hbs

## Testing of Model: Gate Student

Size mark	0	1	2	3	4	5	6	7
Colour code	White	Orange	Violet	Yellow	Red	Green	Blue	Brown
Measured							-3,9°	
γ Angle between seat and backrest	-	-	-	95° to 110°	95° to 110°	95° to 110°	95° to 110°	95° to 110°
Measured							102,9°	
p Height of armrest above seat -20 to +10	-	-	-	170	190	210	230	250
Measured							N/A	
r Width between arms	-	-	-	360-410	390-440	420-470	460-510	510-570
Measured							N/A	
q Distance from backrest to front edge of armrest (max.)	-	-	-	-	225	250	275	300
Measured							N/A	
o Width of armrest (min.)	-	-	-	-	20	20	20	20
Measured							N/A	
n Length of armrest (min)	-	-	-	-	80	80	80	80
Measured							N/A	

**Table F.2 Point S Range for Size Mark**

Size mark	0	1	2	3	4	5	6	7
Colour code	White	Orange	Violet	Yellow	Red	Green	Blue	Brown
S-point	N/A	N/A	N/A	160-210	170-220	180-230	190-240	200-250
Measured							205	

Order no. 751390-2  
Appendix 1  
Page 3 of 3  
Initials laha/prni/hbs

## Testing of Model: Gate Student

### C. Determination of Point S and whether Buttock Zone and Lumbar Support Requirements are met

	<b>Result</b>
Buttock zone meets the requirement	Passed
Lumbar support	Passed

Order no.: 751390-2  
 Appendix: 2  
 Page: 1 of 1  
 Initials: Laha/prni/hbs

## Test of Model: Gate Student

### Loading according to EN 1729-2:2012+A1:2015

Testing	Test Method	Cycles	Loading	Result
<b>5 Testing of chairs</b>				
5.2.2 Forward stability	EN 1022:2005 6.2 or 8.2		Seat: 600 N Horizontal: 20 N	Passed
5.2.3.1 Sideways stability for chairs without armrests	EN 1022:2005 6.4 or 8.2		Seat: 600 N Horizontal: 20 N	Passed
5.2.3.2 Sideways stability for chairs with armrests	EN 1022:2005 6.4, 8.2		Seat: 600 N Horizontal: 20 N	N/A
5.2.4 Rearwards stability	EN 1022:2005 6.6 or 8.5		Seat: 600 N Back: 180 N	Passed
5.2.5 Chairs with backrest inclination	EN 1335-3:2009, 7.17			N/A
5.3.2 Seat and back static load	EN 1728:2012, 6.4	10	Seat: 2000 N Back: Max 700 N	Passed
5.3.3 Seat and back durability	EN 1728:2012 6.17	100.000	Seat: 1250 N Back: 300 N	Passed
5.3.4 Seat front edge durability	EN 1728:2012 6.18	50.000	Vertical: 800 N	Passed
5.3.5 Sideways static load	EN 1728:2012 6.16	10	Vertical: Max. 1600 N Horizontal: Max 600 N	Passed
5.3.6 Forward static load	EN 1728:2012 6.15	10	Vertical: Max. 1600 N Horizontal: Max 600 N	Passed
5.3.7 Seat impact	EN 1728:2012 6.24	10	Drop height: Max. 300 mm	Passed
5.3.8 Back impact	EN 1728:2012 6.25	10	Drop height: Max. 620 mm	Passed
5.3.9 Static load of foot rail	EN 1728:2012 6.8	10	Vertical: max. 1300 N	N/A
5.3.10 Drop test	EN 1728:2012 6.27.3	5	Drop height: 600 mm	Passed
5.3.11 Foot rest durability	EN 1728:2012, 6.21	50.000	Max. 1000 N	N/A
5.3.12 Armrest vertical static load	EN 1728:2012, 6.11 or EN 1335-3:2009, 7.2.3	50.000	Max. 1000 N	N/A
5. Marking	EN 1729-1:2015			Passed
6. Instructions	EN 1729-1:2015			Passed

Order no.: 751390-2  
Appendix: 3  
Page: 1 of 1  
Initials: Laha/prni/hbs

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### Photo

