

Date of receipt: 22/03/21

Date of issue: 12/05/21

Report consists of 10 test reports.

Defects before testing: None

Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

SAMPLE N° 307685

Overall dimensions: 530 x 530 x 790 (h) mm

List of test reports:

1. Outdoor furniture - General safety requirements EN 581-1:2017
2. Seat and back static load test EN 1728:2012+AC:2013
3. Seat and back fatigue test EN 1728:2012+AC:2013
4. Arm downwards static load test EN1728:2012+AC:2013
5. Arm fatigue test EN 1728:2012+AC:2013
6. Leg forward static load test EN 1728:2012+AC:2013
7. Leg sideways static load test EN 1728:2012+AC:2013
8. Seat impact test EN 1728:2012+AC:2013
9. Stability - EN 1022:2005
10. Stability EN 1022:2018, clause 7.3



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*The managing director
Dr. Franco Bulian*

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SAMPLE N° 307685

Date of issue: 12/05/21
Sample weight: Not determined
Sample name: SHELL-N armchair



Side view



Rear view



Bottom view

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TEST REPORT

307685 / 1

Revision: 0
Date of receipt: 22/03/21
Date of test: 30/03/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

Outdoor furniture - General safety requirements EN 581-1:2017

5.1 General:

Requirement	Observed	Remarks
Edges of seat, back rest and arm rests rounded and chamfered	Yes	None
All other parts: free from burrs, sharp edges and sharp points.	Yes	None
Movable and adjustable parts designed so that injuries and inadvertent operation are avoided	Not present	None
Any load bearing part of furniture not come loose unintentionally	Yes	None
Lubricated parts are protected	Not present	None

5.2 Tubular components:

Requirement	Observed	Remarks
Absence of tubular components with diameter > 7 mm and < 12 mm with a depth > 10 mm.	Yes	None
Tubulars in contact with the floor are closed. Holes in them are allowed as long as they are < 7 mm or > 12 mm	Yes	None

5.3 Shear and squeeze points:

Requirement	Observed	Remarks
Shear and squeeze points that are created only during adjusting and folding away are acceptable if the user has the control of his/her movements.	Not present	None
Absence of shear and squeeze points, created by parts operated by powered mechanism.	Not present	None
Absence of shear and squeeze points, created by loads applied during normal use.	Yes	None

Conformity to requirements of clause 5 of standard EN 581-1:2017:

YES

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TEST REPORT

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Revision: 0
Date of receipt: 22/03/21
Date of test: 30/03/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
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TR - TURKEY

Seat and back static load test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Seat and back static load test, clause 6.4, EN 1728:2012+AC:2013

Test results:

Seat load N	Back force N	Number of cycles	Remarks
2.000	560	10 x 10 s	No defects
2.000	560	1 x 30 min	No defects

Seat front edge static load, clause 6.5, EN 1728:2012+AC:2013

Seat load N	Number of cycles	Remarks
1.300	10	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

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Revision: 0
Date of receipt: 22/03/21
Date of test: 29/04/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

Seat and back fatigue test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Seat and back fatigue test, clause 6.17, EN 1728:2012+AC:2013

Test results:

Seat force N	Back force N	Number of cycles	Remarks
1.000	300	50.000	No defects

Note

According to EN 1728:2012+AC:2013, back force has been reduced from 333 N to 300 N to avoid tipping.

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

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Revision: 0
Date of receipt: 22/03/21
Date of test: 04/05/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

Arm downwards static load test EN1728:2012+AC:2013

Test performed according to EN 581-2:2015

Arm downwards static load test clause 6.11, EN 1728:2012+AC:2013

Test results:

Vertical force N	Number of applications	Remarks
900	10	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

307685 / 5

Revision: 0
Date of receipt: 22/03/21
Date of test: 10/05/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

Arm fatigue test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Arm fatigue test clause 6.20, EN 1728:2012+AC:2013

Test results:

Force on arm rest N	Number of cycles	Remarks
400	30.000	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

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Revision: 0
Date of receipt: 22/03/21
Date of test: 12/05/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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TR - TURKEY

Leg forward static load test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Leg forward static load test clause 6.15, EN 1728:2012+AC:2013

Test results:

Forward horizontal force N	Balancing seat force N	Number of cycles	Remarks
400	1.000	10	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

307685 / 7

Revision: 0
Date of receipt: 22/03/21
Date of test: 12/05/21
Date of issue: 12/05/21



Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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34524 ISTANBUL
TR - TURKEY

Leg sideways static load test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Leg sideways static load test clause 6.16, EN 1728:2012+AC:2013

Test results:

Sideways horizontal force N	Balancing seat force N	Number of cycles	Remarks
300	1.000	10	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

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Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
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TR - TURKEY

Seat impact test EN 1728:2012+AC:2013

Test performed according to EN 581-2:2015

Seat impact test clause 6.24, EN 1728:2012+AC:2013

Test results:

Mass of impactor kg	Height of drop mm	Impact point	Number of drops	Remarks
25	240	point A	10	No defects
25	240	100 mm from the front seat edge	10	No defects

Note:

The test results comply with the requirements in clause 7.2.2 of EN 581-2:2015, contract level.

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TEST REPORT

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Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.
34524 ISTANBUL
TR - TURKEY

Stability - EN 1022:2005

Type of chair: fixed geometry

Minimum horizontal force for rearwards overturning of fixed back chair: 165 N

Forwards overturning

Horizontal force : 20 N does not overturn

Rearwards overturning

Fixed back chair

Horizontal force : 165 N does not overturn

Tilting chair in the rearmost position

Loading discs on the seat : /

Sideways overturning for chairs with arms

Horizontal force : 20 N does not overturn

Sideways overturning for chairs without arms

Horizontal force : /

Forwards overturning for chairs with footrest

Horizontal force : /

The test result complies with the requirements of EN 1022:2005

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TEST REPORT

307685 / 10

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Sample name: SHELL-N armchair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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34524 ISTANBUL
TR - TURKEY

Stability EN 1022:2018, clause 7.3

Type of chair: fixed geometry

Positioning of chair components: as specified in Table 1 of EN 1022:2018

Loads and masses according to table B1 of EN 1022:2018, annex B

Forwards overturning

Forwards overturning, clause 7.3.1 : does not overturn
Forwards overturning for seating with foot rest, clause 7.3.2 : /
Corner stability, clause 7.3.3 : does not overturn

Sideways overturning

Sideways overturning, all seating without arm rests, clause 7.3.4 : /
Seating with arm rests, clause 7.3.5.2 : does not overturn
Seating with raised side edges, clause 7.3.5.3 : /

Rearwards overturning

Rearwards overturning all seating with back rests, clause 7.3.6
Minimum force required: 165 N : does not overturn
Tilting seating, clause 7.4.2 : /
Reclining seating with leg rest, clause 7.4.3 : /
Reclining seating without leg rest, clause 7.4.4 : /
Rearwards stability test for rocking chairs, clause 7.4.5 : /

The test results comply with the requirements in clause 7.2 of EN 1022:2018.

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