

Report ID: 396901
Date of sample receipt: 28/07/25
Date of issue: 29/09/25

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

Sample name: SHELL-Z chair

SAMPLE N° 396901

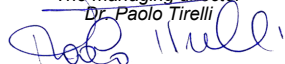
Overall dimensions: 660 x 660 x 770 (h) mm

List of test reports:

1. Safety requirements EN 16139:2025
2. Seat and back static load test and seat front edge static load test EN 1728:2012+AC:2013
3. Vertical load on back rest EN 1728:2012+AC:2013
4. Seat and back fatigue test EN 1728:2012+AC:2013
5. Seat front edge durability test EN 1728:2012+AC:2013
6. Side to side durability test EN 16139:2025, annex B
7. Seat impact test EN 1728:2012+AC:2013
8. Backwards fall test EN 1728:2012+AC:2013
9. Stability EN 1022:2023, clause 7.3



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The managing director
Dr. Paolo Tirelli


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SAMPLE N° 396901

Date of issue: 29/09/25

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Side view



Rear view



Bottom view

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TEST REPORT

396901 / 1

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 07/08/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

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Safety requirements EN 16139:2025

Safety requirements EN 16139:2025, clauses 4.1. 4.2, 4.3

| Statement checked | Remarks |
|--|--|
| Clause 4.1 - General requirements Corner and edges in contact with the users: • Absence of sharp edges and corners | Yes |
| Other edges: • Absence of sharp edges and corners | Yes |
| Movable and adjustable parts: • It shall not be possible for any movable and adjustable part of the chair to come operate unintentionally. | Movable and adjustable parts not present |
| Connections between parts of the structure: • It shall not be possible for any load bearing part of the seating to come loose unintentionally | No |
| Clause 4.2 - Holes and tubular / rigid components Holes in the ends of tubular components or holes in rigid components, in accessible parts: • > 8 mm and < 12 mm, unless the depth is < 10 mm | Yes |
| Clause 4.3 - Shear and compression points • Shear and compression points created only during setting up and folding • Shear and squeeze points under influence of non-elettrically powered mechanism ($\geq 8 \text{ mm} \leq 25 \text{ mm}$) • Shear and squeeze points during normal use and during normal movements and actions ($\geq 8 \text{ mm} \leq 18 \text{ mm}$) | Not present Mechanism not present No |
| Conformity to clauses 4.1, 4.2 and 4.3 of standard EN 16139:20125: | YES |

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TEST REPORT

396901 / 2

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 18/08/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

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

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

Test performed according to the test method EN 1728:2012+AC:2013, clauses 6.4 and 6.5 and in accordance to the test parameters of EN 16139:2025, table 1

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 |
|-------------|--------------|------------------|------------|
| 1.600 | 430 | 10 | No defects |

Note:

According to EN 1728:2012+AC:2013, back force has been reduced from 560 N to 430 N to avoid tipping.

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 |

The test results comply with the requirements in clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 3

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 19/08/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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Vertical load on back rest EN 1728:2012+AC:2013

Test performed according to the test method EN 1728:2012+AC:2013, clause 6.6 and in accordance to the test parameters of EN 16139:2025, table 1

Test results:

| Seat load N | Downwards force N | Number of applications | Remarks |
|-------------|-------------------|------------------------|------------|
| 1.300 | 600 | 10 | No defects |

The test results comply with the requirements of clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 4

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 25/08/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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Seat and back fatigue test EN 1728:2012+AC:2013

Test performed according to the test method EN 1728:2012+AC:2013, clause 6.17 and in accordance to the test parameters of EN 16139:2025, table 1

Test results:

| Seat load N | Back force N | Number of cycles | Remarks |
|----------------|-----------------|---------------------|------------|
| 1.000 | 300 | 100.000 | No defects |

The test results comply with the requirements in clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 5

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 01/09/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

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

Seat front edge durability test EN 1728:2012+AC:2013

Test performed according to the test method EN 1728:2012+AC:2013, clause 6.18 and in accordance to the test parameters of EN 16139:2025, table 1

Test results:

| Points of application | Seat force N | Number of cycles | Remarks |
|--|--------------|------------------|------------|
| 100 mm back from the front and sides edges | 800 | 40.000 | No defects |

The test results comply with the requirements in clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 6

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 04/09/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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Side to side durability test EN 16139:2025, annex B

Side to side durability test EN 16139:2025, annex B

Test results:

| Point of application on the seat | Seat force N | Number of cycles | Remarks |
|----------------------------------|--------------|------------------|------------|
| D and G | 1.100 | 10.000 | No defects |

The test results comply with the requirements of clause 4.5.2 of EN 16139:2025, level 1.

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TEST REPORT

396901 / 7

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 09/09/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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Seat impact test EN 1728:2012+AC:2013

Test performed according to the test method EN 1728:2012+AC:2013, clause 6.24 and in accordance to the test parameters of EN 16139:2025, table 1

Test results:

| Mass of impactor kg | Height of drop mm | Impact point | Number of drops | Remarks |
|---------------------|-------------------|---|-----------------|------------|
| 25 | 240 | seat loading point (A) | 10 | No defects |
| 25 | 240 | on the longitudinal axis, 100 mm from the front seat edge | 10 | No defects |

The test results comply with the requirements in clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 8

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 09/09/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

SAVAS PLASTIK SAN. VE. TIC. A.S.
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Backwards fall test EN 1728:2012+AC:2013

Test performed according to the test method EN 1728:2012+AC:2013, clause 6.28 and in accordance to the test parameters EN 16139:2025, table 1

Force measured to lift the front legs off the floor: 16,0 N

Test results:

| Number of drops | Remarks |
|-----------------|------------|
| 5 | No defects |

The test results comply with the requirements in clause 4.5.2 of standard EN 16139:2025, level 1

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TEST REPORT

396901 / 9

Revision: 0
Date of sample receipt: 28/07/25
Date of test: 09/09/25
Date of issue: 29/09/25



Sample name: SHELL-Z chair

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

Stability EN 1022:2023, clause 7.3

Type of chair: fixed geometry

Positioning of chair components: as specified in Table 2 of EN 1022:2023

Loads and masses according to table B1 of EN 1022:2023, annex B

Forwards overturning

| | | | |
|---|---|------|-------------------|
| Forwards overturning, clause 7.3.1 | : | 20 N | 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 | : | 20 N | does not overturn |
| Seating with arm rests, clause 7.3.5.2 | : | / | |
| 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: 168 N | : | 168 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 4.4 of standard EN 16139:2025

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