

Date received: 22/12/20

Date of issue: 20/01/21

Report consists of 10 test reports.

Defects before testing: None

Sample name: Armchair SHELL

SAVAS PLASTIK SAN. VE. TIC. A.S.

BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY.

34524 ISTANBUL TR - TURKEY

# **SAMPLE N° 302833**

Overall dimensions: 550 x 530 x 795 (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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Managing Director
Di Franco Bulian



# **SAMPLE N° 302833**

Date of issue: 20/01/21

Sample weight: Not determined Sample name: Armchair SHELL



Side view



Bottom view



Rear view



Testing site: via Antica, 24/3 33048 San Giovanni al Natisone (UD) tel. +39 0432 747211 lab@catas.com



LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT

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Revision: 0
Date received: 22/12/20

Date of test: 24/12/20
Date of issue: 20/01/21

Sample name: Armchair SHELL



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 forniture 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.  | No          | Presence of squeeze points between shell and frame. |

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

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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

TEST REPORT 302833 / 2

Revision: 0

 Date received:
 22/12/20

 Date of test:
 08/01/21

 Date of issue:
 20/01/21

Sample name: Armchair SHELL



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 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<br>N | Back force<br>N | Number<br>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<br>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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT

**302833 / 3** Revision: 0

 Date received:
 22/12/20

 Date of test:
 12/01/21

 Date of issue:
 20/01/21

Sample name: Armchair SHELL



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 | Back force | Number    | Remarks    |
|------------|------------|-----------|------------|
| N          | N          | of cycles |            |
| 1.000      | 333        | 50.000    | 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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT

**302833 / 4** Revision: 0

 Date received:
 22/12/20

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 18/01/21

 Date of issue:
 20/01/21

Sample name: Armchair SHELL



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<br>force<br>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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT **302833 / 5**

Revision: 0

 Date received:
 22/12/20

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 18/01/21

 Date of issue:
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Sample name: Armchair SHELL



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<br>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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT

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Revision:

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Sample name: Armchair SHELL



SAVAS PLASTIK SAN. VE. TIC. A.S. BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY. 34524 ISTANBUL 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<br>horizontal force<br>N | Balancing<br>seat force<br>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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

**TEST REPORT** 

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Revision: 0

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Sample name: Armchair SHELL



SAVAS PLASTIK SAN. VE. TIC. A.S. BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY. 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<br>horizontal force<br>N | Balancing<br>seat force<br>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 302833 / 8

Revision: 0

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SAVAS PLASTIK SAN. VE. TIC. A.S. BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY. 34524 ISTANBUL 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<br>of drop<br>mm | Impact point                    | Number<br>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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LAB N° 0027 L Membro degli MRA EA, IAF e ILAC

# TEST REPORT

**302833 / 9**Revision: 0

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Sample name: Armchair SHELL



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 302833 / 10

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SAVAS PLASTIK SAN. VE. TIC. A.S. BEYSAN SAN. SIT. BIRLIK CAD. NO: 18-BEY. 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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Dr. Franco Bulian