TECHNOLOGY INSTITUTE

## TEST CERTIFICATE N. 231.Z.2304.232.EN. 01

## PRODUCT: AFRICA LOUNGE CHAIR <br> COMPANY: VONDOM, S.L.U. <br> POLÍGONO 6, 16 <br> 46293 BENEIXIDA (VALĖNCIA) SPAIN <br> www.vondom.com




#### Abstract

TEST: Compliance with the following standards: UNE-EN 581-1: 2017 \& UNE EN 581-2:2016/AC 2016 Outdoor furniture. Seating and tables for camping, domestic and contract use. Part 1: General safety requirements. Part 2: Mechanical safety requirements and test methods for seating. ANSI/BIFMA X5.4-2020 Public and Lounge Seating. Test RESULT: Satisfactorily complies with specifications of standards ANSI/BIFMA X5.4-2020, for single seating style A, with UNE-EN 581-1:2017 and UNE EN 581-2:2016/AC 2016 for outdoor seating for public use, according to the following tests applicable to the product


|  | TEST | RESULT |
| :---: | :---: | :---: |
| $\begin{gathered} \text { ANSI/BIFMA X5.4- } \\ 2020 \end{gathered}$ | 4. Type of chair (single seating) <br> 5. Backrest horizontal static load test. $\mathrm{Fh}_{1}=667 \mathrm{~N}, \mathrm{t}=1 \mathrm{~min} . \mathrm{Fh}_{2}=1112 \mathrm{~N}, \mathrm{t}=10 \mathrm{sec}$ ) <br> 7. Backrest durability Test. Horizontal. (Fh= 334 N, $n=120000$ cycles) <br> 9. Arm strength test. Horizontal. $\left(\mathrm{Fh}_{1}=445 \mathrm{~N}, \mathrm{t}=1 \mathrm{~min} . \mathrm{Fh}_{2}=667 \mathrm{~N}, \mathrm{t}=10 \mathrm{sec}\right)$ <br> 10. Arm strength test. Vertical. ( $\mathrm{Fv}_{1}=750 \mathrm{~N}, \mathrm{t}=1 \mathrm{~min} . \mathrm{Fv}_{2}=1125 \mathrm{~N}, \mathrm{t}=10 \mathrm{sec}$ ) <br> 13. Arm durability test. ( $F=400 \mathrm{~N}, \mathrm{n}=60000$ cycles) <br> 14. Seating durability test, ( $M=57 \mathrm{~kg}, \mathrm{~h}=30 \mathrm{~mm}, \mathrm{n}=100000$ cycles) <br> 15. Impact test. ( $\mathrm{h}=152 \mathrm{~mm}, \mathrm{M}_{1}=102 \mathrm{~kg}, \mathrm{M}_{2}=136 \mathrm{~kg}$ ) <br> 16. 3 Leg forward static load test. ( $\mathrm{Fh}_{1}=334 \mathrm{~N}, \mathrm{t}=1 \mathrm{~min}, \mathrm{Fh}_{2}=503 \mathrm{~N}, \mathrm{t}=10 \mathrm{sec}$ ) <br> 16. 4 Leg sideways static load test. $\left(F h_{1}=334 \mathrm{~N}, \mathrm{t}=1 \mathrm{~min}, \mathrm{Fh}_{2}=503 \mathrm{~N}, \mathrm{t}=10 \mathrm{sec}\right)$ <br> 17. Unit drop test. ( $\mathrm{h}=180 \mathrm{~mm}, \mathrm{n}=2$ times) <br> 21.3-21-5 Front and rear stability test <br> 24. Structural durability test ( $Q=109 \mathrm{~kg}, \mathrm{Fh}=334 \mathrm{~N}, \mathrm{n}=25000$ cycles) | $\begin{aligned} & \text { Style A } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { CORRECT } \\ & \text { STABLE } \\ & \text { CORRECT } \end{aligned}$ |
| UNE EN 581-1:2017 <br> UNE EN 581-2:2016 <br> /AC 2016 | UNE EN 581-1:2017 - General safety requirements Stability (forwards; sideways \& rearwards overturning) UNE EN 1022:2019 UNE EN 581-2:2016/AC 2016: §. 7.1. General <br> §. 7.2. Safety, Strength and Durability Requirements <br> Test 1 Seat and back static load test ( $F_{V}=2000 \mathrm{~N}, \mathrm{~F}_{\mathrm{H}}=560 \mathrm{~N}, \mathrm{n}=10+1$ ) <br> Test 2 Seat front edge downwards static load test ( $F_{V}=1300 \mathrm{~N}, \mathrm{n}=10$ times) <br> Test 3 Seat and back fatigue test ( $\mathrm{F}_{\mathrm{V}}=1000 \mathrm{~N}, \mathrm{~F}_{\mathrm{H}}=333 \mathrm{~N}, \mathrm{n}=50000$ cycles) <br> Test 5 Arm rest static load test ( $\mathrm{F}_{\mathrm{v}}=900 \mathrm{~N}, \mathrm{n}=10$ times) <br> Test 6 Arm rest durability test ( $F=400 \mathrm{~N}, \mathrm{n}=30000$ cycles) <br> Test 7 Leg forward static load test ( $M=100 \mathrm{~kg}, \mathrm{~F}_{\mathrm{H}}=270 \mathrm{~N}, \mathrm{n}=10$ times) <br> Test 8 Leg sideways static load test ( $M=100 \mathrm{~kg}, \mathrm{~F}_{\mathrm{H}}=300 \mathrm{~N}, \mathrm{n}=10$ times) <br> Test 9 Seat impact test ( $\mathrm{M}=25 \mathrm{~kg}, \mathrm{~h}=240 \mathrm{~mm}, \mathrm{n}=10$ times) | APPROVED <br> STABLE APPROVED <br> CORRECT <br> CORRECT <br> CORRECT <br> CORRECT <br> CORRECT <br> CORRECT <br> CORRECT <br> CORRECT |

Paterna, April 13, 2023

## GAIDIMME (0) <br> Signed: José Emilio Nuévalos

Furniture and Products Laboratory Manager
This certificate only refers to the samples tested by the AIDIMME laboratory.
The particular results of the tests are described in technical report n. 231.I.2304.232.ES. 01 dated on 04/04/2023.
AIDIMME is a member of INNOVAWOOD, the European Innovation Network for the Forestry, Wood and Furniture Industry, among whose members they are: BRE-CTTC (United Kingdom), COSMOB (Italy), DTI (Denmark), FCBA (France), ITD (Poland), SHR (Netherlands), RISE (Sweden), TRADA-FIRA (United Kingdom), University of Zagreb (Croatia), WKI (Germany)

