

Electrostatic Test Relative to the Pathology Known as Semicircular Lipoatrophy of the Mobility Step Table According to Standards UNE-EN 61340-2-3 and UNE-EN 61340-2-1 Report Nr. 920432_R01 – Dated 27th of March 2019

Introduction

This report shows the results from the tests described below, made in accordance with the Standards UNE-EN 61340-2-3:2016 and UNE-EN 61340-2-1:2015.

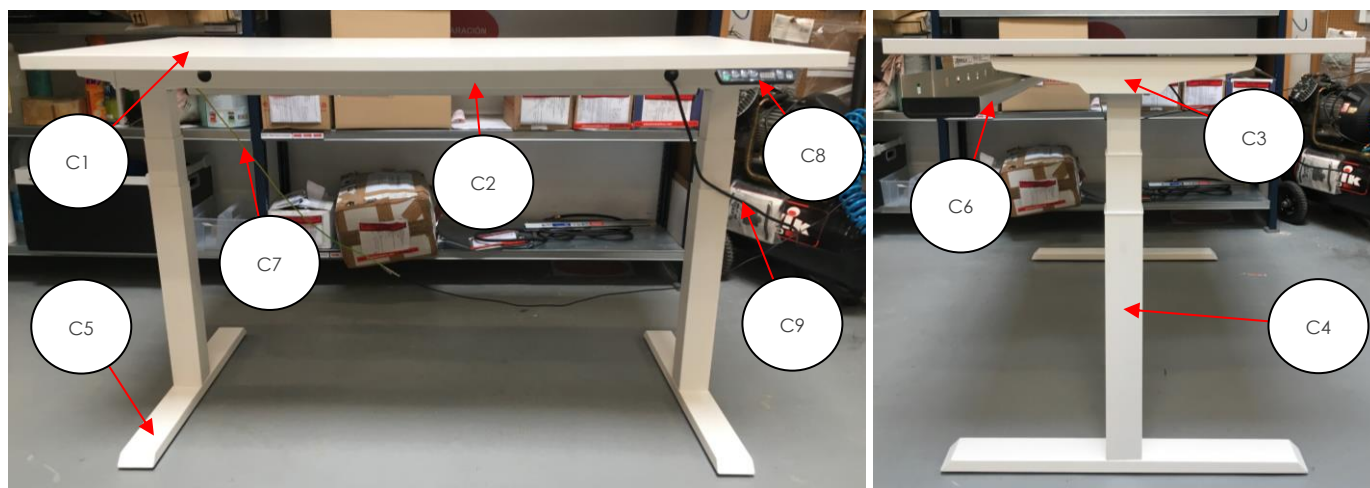
Relevant data concerning the work associated to this report

Sample arrival date:	04.03.2019
Starting date of the conditioning:	04.03.2019
Ending date of the conditioning:	06.03.2019
Starting date of the tests:	14.03.2019
Ending date of the tests:	14.03.2019
Test proceeding:	852.19050 and 852.29050

Tests and relevant parameters

Description of the sample

Name:	Mobility Step
Description:	Individual electric table with adjustable height
Serial Number/Reference:	MP6130006
Manufacturer:	Actiu Berbegal y Formas, S.A.
Dimensions:	64 – 129 cm x 140 cm x 80 cm
Color:	White



- C1: Rectangular board with straight edges
- C2: Electrification channel of the table
- C3: Metallic bracket/support of the board
- C4: Adjustable metal columns
- C5: Skids with circular polypropylene levelers
- C6: External electrification tray
- C7: Grounding cable
- C8: Programmable height controller
- C9: AC/DC adapter

Figure 1. Detail of the sample under test.

Prior conditioning of the sample and tests conditions

Temperature:	20 ± 3 °C
Relative Humidity (RH):	50 ± 20 %
Cleaning procedures:	None, the sample arrives clean

The conditioning time prior to testing was at least 48 h.

Instrument traceability

Instrument	Code	Serial Nr.	Traceability
Picoammeter / Voltage source	990.20050	1204398	T. N° C-1887828-1
Concentric ring probe	990.20803	732	S. N° V-190309_1
2,25 kg disc probe	990.20023	190320	S. N° V-190309_2
3 ^{1/2} Digital Multimeter	990.20033	302341	S. N° V-190309_3
Charged Plate Monitor (CPM)	990.10160	1660	M. N° C-04925.00032

Table 1. Instrument traceability.

Test results

Test Nr.	R _s C1 [Ω]	R _g C1 ¹ [Ω]	R _g C1 ² [Ω]	R _g C2 [Ω]	R _g C4 [Ω]
1	3,73962E+11	2,97813E+09	1,52724E+10	1,0	0,7
2	3,90406E+11	2,84996E+09	1,64016E+10	0,7	0,6
3	4,87041E+11	2,72777E+09	2,82940E+10	0,6	0,7
Geometric mean	4,14289E+11	2,85012E+09	1,92086E+10	0,7	0,7

R _s C1	Surface resistance of the board
R _g C1 ¹	Resistance to ground from the surface of the board
R _g C1 ²	Resistance to ground from the edge of the board
R _g C2	Resistance to ground from the electrification channel
R _g C4	Resistance to ground from the adjustable columns

Table 2. Results of the resistance tests with an electrification time of 15 s and an applied voltage of 10 V if the resistance to be tested was less than 10⁶ Ω, and an electrification time of 65 s and an applied voltage of 100 V if the resistance to be tested was between 10⁶ Ω and 10¹² Ω.

Test Nr.	T+ [s]	T- [s]
1	45,8	47,7
2	54,9	47,3
3	58,1	63,5
Arithmetic mean	52,9	52,8

T+:	Decay time from +1000 V to +100 V
T-:	Decay time from -1000 V to -100 V

Table 3. Results of the decay time tests in direct contact of the person with the edge of the table.

Observations

None.

Conclusions

The tests carried out indicate that the Mobility Step table presents a good anti-electrostatic behavior relative to the pathology known as semicircular lipoatrophy.

The very high decay times of the electrostatic charge compared to a conflicting table, which has decay times of fractions of a second, has a positive evaluation, which places the table in an optimum range in this sense.

Variables that weighed up this model are the absence of a metallic structure in the perimeter of the board, a thick-chested board, as well as optimal resistance values with respect to the thresholds that we consider adequate.

Without further information we remain at the disposal of the interested parties for any clarification regarding this document.

Approved by:

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