

Report

SQC20060510

Ergomat A/S

***Impedence measurement
of chairs and floor mats***



Engvej 3
Rungsted Kyst DK2960
www.qualcert.dk
qualcert@qualcert.dk
fs@qualcert.dk
Mobil +45 4041 3930

Tlf. +45 4586 3592
Fax +45 4586 3572
Moms nr. DK 27179169
Bank: FB Reg. nr. 5490
Konto nr.: 1714145
Swift: FBBKDKKK



Report : Impedance measurement of chairs and floor mats
Report no. : SQC20060510
Client : Ergomat A/S
Sunekær 13-15
5471 Søndersø
Denmark
Contact person : Peter Broe Bendtsen
Telephone : +45 6389 6110
Project Nr. 0432 : Chairs EP 600 ESD & ErgoPerfect 2000 ESD
Floor mats Ergomat Nitril ESD & Mattega Viking ESD
Test period : 28 April to 2 Maj 2006
Performed by : SQC
Engvej 3
2960 Rungsted Kyst
Denmark
Date : 10 Maj 2006

Responsible :



Finn Skaanning



Table of contents		Page
1.	General	4
2.	Conclusion	5
3.	Measurement results	6
4.	Measuring equipment	7
	Annex A Photos	8
	Annex B Climate chamber data	10
	Annex C IEC 61340-5-1 Table 1 & A.1	13

1. General

This report contains the results of measurements of the ESD properties for two chairs and two floor mats.

The measurements performed are "Resistance to EPA ground or groundable point R_g ", as described in IEC 61340-5-1 Table 1 and A.1.

For ErgoPerfect 600 ESD, an additional measurement of "Surface resistance R_s " (ohm/square) was performed both in the climate chamber and at laboratory room conditions 19,7°C/41,3%RH.

Measuring voltage 100V DC, probe 5 Kg.

As reference, the set up was measured, probe to metal plate, reference value = 84 ohm, Photo 1.

Before the measurements, the items were conditioned at 12%RH, 23°C for 96 hours. The measurements were performed at 96 hours -0 +10 hours, see Annex B.

2. Conclusion

The four measured items:

ErgoPerfect 600 ESD
ErgoPerfect 2000 ESD
Ergomat Nitril ESD
Mattega Viking ESD

Using the test method described in IEC 61340-4-1, all four items were found to be within the requirements as described in IEC 61340-5-1 Table 1.

3. Measuring results (in ohm)

ErgoPerfect 600 ESD, Photo 2

IEC 61340-5-1

From metal plate to:

seat 1,6 X 10e9
 internal metal parts 1,0 X 10e9
 foot 412

<10e10

Surface resistance ohm/square

chamber room

seat top side
 seat bottom side

4,5X 10e9 3,6X 10e9
 1,2X 10e10 6,0X 10e9

ErgoPerfect 2000 ESD, Photo 3

From metal plate to:

back 967 X 10e6 ohm
 seat 1,0 X 10e6 ohm
 arm 1,0 X 10e6 ohm
 arm 1,0 X 10e6 ohm
 footrest 34 X 10e6 ohm
 foot 2,5 X 10e3 ohm

< 10e10

Ergomat Nitril ESD, Photo 4

From metal plate to:

side A 1.1 X 10e5 ohm
 side B 0,8 X 10e5 ohm
 (side B with foam 0,4 X 10e5 ohm)

< 10e9 ohm

Mattega Viking ESD, Photo 5

From metal plate to:

side A 0,5 X 10e6 ohm

< 10e9 ohm

From grounding point to:

side A 0,8 X 10e6 ohm

4. Measuring equipment

NORMA UNILAP ISO X Certificate Arepa 22-254873	Calibrated 04-10-2005
STATICIDE ACL 800 Certificate Arepa 22-254921	Calibrated 04-10-2005
Delta Climate chamber VF10	Calibrated 13-11-2005
Delta Psykometer EP03	Calibrated 23-09-2005