

SUDEX ARGENTINA SRL Date: November 26, 2014 4700 Broadmoor SE, Suite 200 Kentwood, MI 49512

Telephone: 616-656-7401 Facsimile: 616-656-2022 www.intertek-etlsemko.com

Report No.:101891909GRR-001

Page 1 of 17



















Test Report For:

SUDEX ARGENTINA SRL

ANSI/BIFMA X5.1-2011 CHAIR TEST STANDARD

Foldi Arm Chair

Lynwood Pearson Project Manager

Anthony Serge Reviewer

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Date: November 26, 2014 Page 2 of 17

Attention: Roydon Pittock Sudex Argentina SRL Ruta 33, Km 5.5 Bahía Blanca Provincia de Buenos Aires

Argentina

Phone: 0291 4888222 Email: info@novec.com.ar

DATE RECEIVED: 11/10/2014

DATES TESTED: 11/12/2014 - 11/25/2014

DESCRIPTION OF SAMPLES:

Part Description: Foldi Arm Chair

Condition of Test Sample: New

WORK REQUESTED/APPLICABLE DOCUMENTS:

To test the submitted sample per ANSI/BIFMA X5.1-20 11 Chair Test Standard for the following test program:

Test No.	Test Description
6	Back Rest Strength-Non-Tilt
12	Stability
13	Arm Strength-Vertical
14	Arm Strength-Horizontal
15	Backrest Durability-Tilt
16	Backrest Durability-Non-Tilt
21	Arm Durability

CONCLUSION:

Test	Results	Notation
ANSI/BIFMA 5.1-2011 #6 Back Strength	Compliant	No loss of serviceability.
ANSI/BIFMA 5.1-2011 #12 Stability	Compliant	No loss of serviceability.
ANSI/BIFMA 5.1-2011 #13 Vertical Arm Strength	Compliant	No loss of serviceability.
ANSI/BIFMA 5.1-2011 #14 Horizontal Arm Strength	Compliant	No loss of serviceability.
ANSI/BIFMA 5.1-2011 #16 Backrest Durability	Compliant	No loss of serviceability.
ANSI/BIFMA 5.1-2011 #21 Armrest Durability	Compliant	No loss of serviceability.

Report No.:101891909GRR-001 Page 3 of 17 SUDEX ARGENTINA SRL

Date: November 26, 2014

TEST EQUIPMENT:

Asset	Description	Cal Date	Cal Due
138272	LOAD CELL 0-1,000 #	10/16/2014	10/16/2015
138042	SEATING IMPACT / 2 STATION	VBU	VBU
138043	BACK DURABILITY 0-300lbs	VBU	VBU
138336	STOPWATCH	2/19/2014	2/19/2015
138170	FRONT STABILITY WEIGHT	04/14/2008	VBU
138012	SCALE / 0-1,000 #	12/11/2013	12/12/2014
138148	DIGITAL PROTRACTOR	09/11/2014	09/11/2015
138279	FORCE GAGE; DIGITAL 100LB	03/31/2014	03/31/2015
138282	STEEL RULE 0-60" x 1/64	06/05/2014	06/05/2015
138112	GRADUATED RULE 36"	10/11/2013	10/11/2018
138343	Arm Durability Station	VBU	VBU

Date: November 26, 2014 Page 4 of 17

6. BACK STRENGTH PROCEDURE - STATIC (Type II-III - Non-Tilt Seat):

Date Tested: 11/25/2014

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1 2011; Test No. 6

Functional Load: 150 lbf. Proof Load: 250 lbf.

Number of Samples Tested: One (1)

Acceptance Criteria:

Functional Load: There shall be no loss of serviceability to the chair.

Proof Load: There shall be no sudden and major change in the

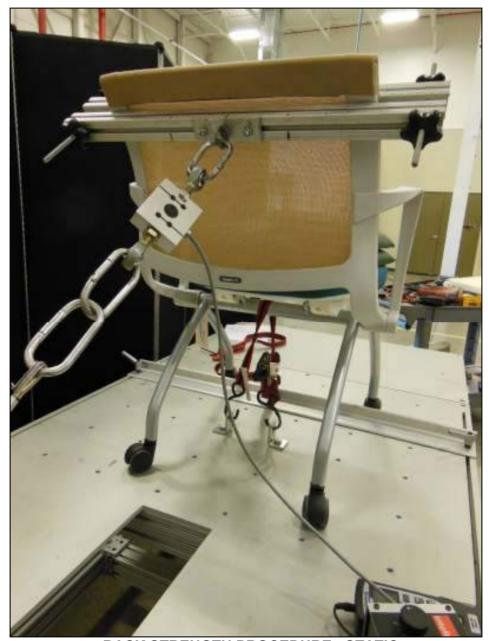
structural integrity of the product. Loss of

serviceability is acceptable.

Results:

Sample ID	Static Load	Description of Results
1	150 lbf.	Pass
'	250 lbf.	Pass

SUDEX ARGENTINA SRL Report No.:101891909GRR-001 Page 5 of 17



BACK STRENGTH PROCEDURE - STATIC

Date: November 26, 2014 Page 6 of 17

12. STABILITY TEST -DYNAMIC (Front and Rear):

Date Tested: 11/25/2014

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1-2011; Test No. 12

All t for

the most unstable conditions.

Chair Type:

Weight in Seat

(Rear Stability Only): Type I: 286 lbs. (13 disks)

Type II: 286 lbs (13 disks) Type III: 132 lbs (6 disks)

Front Stability:

Alternative: N/A
Vertical Load: 135 Lbs
Horizontal Force: 4.5 Lbs
Number of Samples Tested: One (1)

Acceptance Criteria:

Front Stability: The chair shall not tip over as the result of the force

application of 4.5 lbf.

Rear Stability: The force to tip shall not be less than:

Type Type

Type III: [F = 1.1 (47 - H)] pounds force.]. H is the

seat height in inches. For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93 N (20.9 lbf.)

shall be applied.

Results:

Sample ID	Seat Height	Front Stability	Rear Stability	Results
1	18"	lbf. to tip	lbf. to tip	Pass

Report No.:101891909GRR-001 Page 7 of 17 SUDEX ARGENTINA SRL



Stability Test - Rear

Report No.:101891909GRR-001 Page 8 of 17 SUDEX ARGENTINA SRL



Stability Test - Front

Date: November 26, 2014 Page 9 of 17

13. ARM STRENGTH TEST VERTICAL-STATIC:

Date Tested: 11/25/2014

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1-2011; Test No. 13

Functional Static Load: 169 lbf.
Proof Static Load: 253 lbf.
Number of Samples Tested: One (1)

Acceptance Criteria:

Functional Load: There shall be no loss of serviceability.

Proof Load: There shall be no sudden and major change in the

structural integrity of the chair. Loss of serviceability

is acceptable.

Results:

Sample ID.	Static down Load (lbf.)	Description of Results
1	169 lbf.	Pass
I	253 lbf.	Pass

Report No.:101891909GRR-001 Page 10 of 17 SUDEX ARGENTINA SRL



Arm Strength Test Vertical-Static

Date: November 26, 2014 Page 11 of 17

14. ARM STRENGTH TEST- HORIZONTAL-STATIC:

Date Tested: 11/25/20104

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1-2011; Test No. 14

Functional Force: 100 lbf.
Proof Load: 150 lbf.
Number of Samples Tested: One (1)

Acceptance Criteria:

Functional Load: A functional load applied once shall cause no loss of

serviceability.

Proof Load: A proof load applied once shall cause no sudden

and major change in the structural integrity of the

unit. Loss of serviceability is acceptable.

Results:

Sample ID.	Load (lbf)		Results
1	Functional Load	100 lbf.	Pass
Į.	Proof Load	150 lbf.	Pass

Report No.:101891909GRR-001 Page 12 of 17 SUDEX ARGENTINA SRL



Arm Strength Test- Horizontal-Static

Date: November 26, 2014 Page 13 of 17

16. BACK DURABILITY TEST-CYCLIC (Type III):

Dates Tested: 11/17/2014 – 11/25/2014

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1-2011; Test No. 16

Backrest Width: 18"

Number of Cycles Required: 120,000
Center Pull Location: 80,000
Off Center Pull Location: 40,000
Force Applied to Chair Back: 75 lbf.
Load in Seat: 225 lbs.
Cycles per Minute: 10 to 30

Number of Samples Tested: One (1)

Acceptance Criteria:

No structural breakage or loss of serviceability.

Results:

Sample ID	Pull Location	Number of Cycles	Description of Results
1	Center Pull	80,000	Pass
'	Off Center Pull	40,000	Pass

SUDEX ARGENTINA SRL Report No.:101891909GRR-001 Page 14 of 17



BACK DURABILITY TEST-CYCLIC

Date: November 26, 2014 Page 15 of 17

21. ARM DURABILITY TEST- CYCLIC:

Dates Tested: 11/12/2014 – 11/17/2014

Condition of Test Sample: New

Test Procedure:

Test Method: ANSI/BIFMA X5.1-2011; Test No. 21

Load To Each Arm: 90 lbs.

Angle of Force: 10 Degrees from Vertical

Number of Cycles Required: 60,000 Cycles per Minute: 10 to 30 Number of Samples Tested: One (1)

Acceptance Criteria:

Structural breakage or loss of serviceability shall constitute failure. No failure that in any way would cause personal injury to the occupant shall be allowed.

Results:

Sample ID	Number of Cycles	Description of Results
1	60,000	Pass

SUDEX ARGENTINA SRL Date: November 26, 2014

Report No.:101891909GRR-001 Page 16 of 17



Arm Durability Test - Cyclic

SUDEX ARGENTINA SRL

Date: November 26, 2014

Report No.:101891909GRR-001 Page 17 of 17

Revisions Made To Test Report

Index	Date	Revision Description	Revised by	Revised by
001	26-Nov-2014	Initial release.	Lynwood Pearson	Lymand Pearson