



TEST REPORT: 4787932642.1

APPLICANT

Name: TECNO SPA
Address : Via Milano 28
 Casella Postale N.121
 Mariano Comense, Co 22066
 Italy



Product : Aeris.
 UNI EN 16139:2013
 (Ref. EN 1728:2012, cl. _-)

DATE

Sample in: 10/04/2017
Tests start: 10/04/2017
Tests end: 06/05/2017
Report issue: 06/05/2017

OVERALL DIMENSIONS:

Measured:	Depth:	640 mm;	Height:	900 mm
	Width:	2360 mm	Weight:	61 kg
Nominal:	Depth:	ND;	Height:	ND;
	Width:	ND;	Weight:	ND;
Sample number	899539	Order number: 11716737		

REFERENCE STANDARD

EN 16139:2013 + EN 16139:2013/AC:2013 Furniture. Strength, durability and safety. Requirements for non-domestic seating.

NOTE: On customer's request only the test listed in this report have been performed.

Applied test level:2

Sample defects before the test: NO VISIBLE DEFECTS

Technician
Rodolfo Sala

Laboratory Manager
Matteo Longoni

*Note: any copy, even partial, of this report, and any change or alteration to it are strictly forbidden.
 The test results listed in this report are relevant only for the tested sample. Sampling performed by the customer.*



TEST REPORT: 4787932642.1

Issued on: 6/5/2017

	RATING	NOTE
4 Safety	P	
4.1 General: The seating shall be so designed as to minimise the risk of injury to the user. All accessible parts shall be so designed that physical injury and damage are avoided. This requirement is met when:	P	
a) accessible corners are rounded or chamfered;	P	
b) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded or chamfered;	P	
c) the edges of handles are rounded or chamfered in the direction of the force applied;	NA	
d) all other edges are free from burrs and rounded or chamfered;	P	
e) the ends of hollow components are closed or capped;	P	
Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided	NA	
It shall not be possible for any load bearing part of the seating to come loose unintentionally	P	
All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use	NA	
4.2 Shear and squeeze points	P	
4.2.1 Shear and squeeze points when setting up and folding: Unless 4.2.2 or 4.2.3 are applicable, shear and squeeze points that are created only during setting up and folding, including tipping seat actions, are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain	NA	
The edges of parts moving relative to each other and creating shear and squeeze points shall be as specified in 4.1	NA	
4.2.2 Shear and squeeze points under influence of powered mechanism: With the exception of tipping seats there shall be no shear and squeeze points created by parts of the seating operated by powered mechanisms, e.g. springs and gas lifts	NA	
4.2.3 Shear and squeeze points during use: There shall be no shear and squeeze points created by forces applied during normal use as well as during normal movements and actions. (during strength and durability test according to cl 6).	P	
4.3 Stability:	NR	
4.3.1 General	NR	
The seating shall not overturn under the following conditions:	NR	
a) by pressing down on the front edge of the seat surface in the median plane;	NR	
b) by applying a load on the seat surface via the front corner;	NR	
c) by leaning sideways on an item of seating with or without arm rests;	NR	
d) by leaning against the back rest;	NR	
e) by sitting on the front edge of the seat;	NR	



TEST REPORT: 4787932642.1

Issued on: 6/5/2017

	RATING	NOTE
f) by loading the foot rest.	NA	
4.3.2 Swivelling chairs	NA	
Requirements a) to e) are considered to be met if the seating complies with the relevant requirements of EN 1335-2.	NA	
The requirement f) is considered to be met if the seating complies with EN 1022:2005, 6.3.	NA	
4.3.3 Non swivelling chairs	NR	
Requirements a) to f) are considered to be met if the seating complies with EN 1022:2005.	NR	
4.4 Rolling resistance of unloaded chair:	NA	
This subclause is only applicable to single seating units fitted with castors or wheels. The unloaded seating shall not roll unintentionally; this requirement is met when	NA	
- the rolling resistance is ≥ 12 N when tested in accordance with EN 1335-3:2009, 7.4; and	NA	
- all castors are of the same type	NA	
4.5 Safety of the construction	P	Rating referred only for applied test
The following tests described in Clause 6, are considered to be relevant to safety:	P	
6.1 Seat and back static load test	P	
6.2 Seat front edge static load test	P	
6.4 Foot rest and leg rest static load test	NA	
6.6 Arm downwards static load test	NA	
6.7 Vertical upwards static load on arm rest	NA	
6.8 Seat and back durability test	NR	
6.9 Seat front edge durability test	NR	
6.10 Arm durability test	NA	
6.12 Leg forward static load test	NR	
6.13 Leg sideways static load test	NR	
6.14 Seat impact test	NR	
Seating is considered to satisfy the safety requirements if, on completion of the relevant tests, the chair satisfies all requirements of Clause 5	NR	
5 Safety, strength and durability requirements	P	Rating referred only for applied test
The chair shall be constructed to ensure that it does not create a risk of injury to the user of the chair under the following conditions:	P	
- sitting on the seat, both centrally and off-centre;	P	
- moving forward, backwards, and sideways while sitting in the chair;	P	
- leaning over the arm rests;	P	
- pressing down on the arm rests while getting up from the chair;	P	

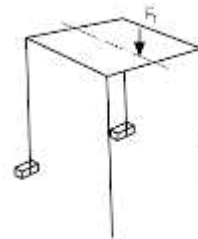
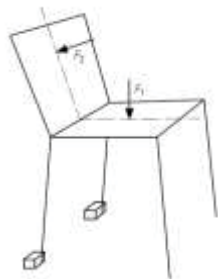


TEST REPORT: 4787932642.1

Issued on: 6/5/2017

	RATING	NOTE
These safety, strength and durability requirements are fulfilled when during and after testing in accordance with Table 1	P	Rating referred only for applied test
a) there are no fractures of any member, joint or component;	P	
b) there are no loosening of joints intended to be rigid;	P	
c) no major structural element is significantly deformed;	P	
d) the chair fulfils its functions after removal of the test loads;	P	
The stability requirements are fulfilled when after testing in accordance with cl. 6 the seating does not overturn.	P	
6 Test methods	P	
Seating shall be tested on the same sample for safety, strength and durability according to cl. 6 and following the order listed on this test report	P	
7 Information for use	NR	
Information for use shall be available in the language of the country in which it will be delivered to the end user.	NR	
The information for use shall contain at least the following details:	NR	
a) information regarding the intended use;	NR	
b) if the chair is fitted with adjusting mechanisms: instruction for operating the adjusting mechanisms;	NA	
c) assembly instructions, where applicable;	NR	
d) instruction for the care and maintenance of the chair;	NR	
e) if the seating is fitted with castors: information on the choice of castors in relation to the floor surface;	NA	
f) if the seating is fitted with adjustment mechanisms comprising an energy accumulator, an additional note is required pointing out that only instructed personnel may replace and maintain adjustment mechanisms containing energy accumulators.	NA	

Seat and back static load test EN 16139:2013 Cl. 6.1 (ref. EN 1728:2012, cl. 6.4)



CHAIRS WITH BACK REST FIXED WITH AN ANGLE OF 70° OR MORE

Seat force (N)	Back rest force (N)	Cycles	Rating
2.000	700	10	P

Note: test performed on 2 sitting positions simultaneously;



TEST REPORT: 4787932642.1

Issued on: 6/5/2017

Seat front edge static load test EN 16139:2013 Cl. 6.2 (ref. EN 1728:2012, cl. 6.5)

Force applied on the seat at 100 mm from the front edge (N)	Cycles	Rating
1.600	10	P

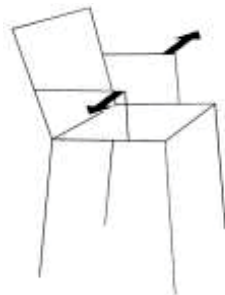
Note: test performed on 2 sitting positions simultaneously.

Vertical static load on back EN 16139:2013 Cl. 6.3 (ref. EN 1728:2012, cl. 6.6)

Seat force (N)	Back rest force (N)	Cycles	Rating
1.800	900	10	P

Note: test performed on 2 sitting positions simultaneously.

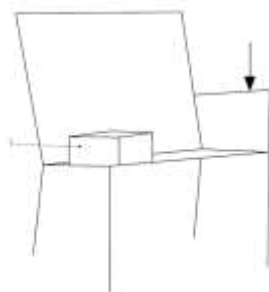
Arm sideways static load test EN 16139:2013 Cl. 6.5 (ref. EN 1728:2012, cl. 6.10)



Load (N)	Cycles	Rating
900	10	P

Note:

Arm downwards static load test EN 16139:2013 Cl. 6.6 (ref. EN 1728:2012, cl. 6.11)



Vertical load (N)	Balancing load (N)	Cycles	Rating
900	0	5	P

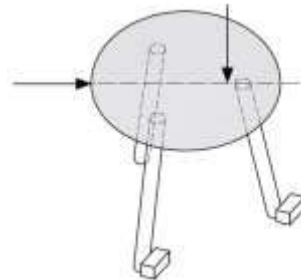
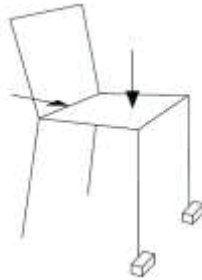
Note:



TEST REPORT: 4787932642.1

Issued on: 6/5/2017

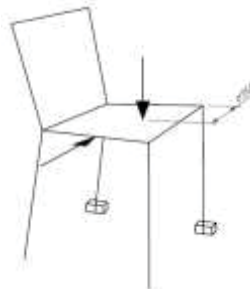
Leg forward static load test EN 16139:2013 Cl. 6.12 (ref. EN 1728:2012, cl. 6.15)



Horizontal force (N)	Balancing force (N)	Cycles	Rating
620	1.800	10	P

Note: the load was applied on each of the 2 sessions.

Leg sideways static load test EN 16139:2013 Cl. 6.13 (ref. EN 1728:2012, cl. 6.16)



Horizontal force (N)	Balancing force (N)	Cycles	Rating
760	1.800	10	P

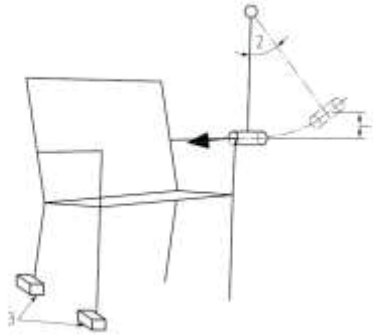
Note: the load was applied on each of the 2 sessions.



TEST REPORT: 4787932642.1

Issued on: 6/5/2017

Arm impact test EN 16139:2013 Cl. 6.16 (ref. EN 1728:2012, cl. 6.26)



Drop height (mm)	Drop angle (°)	Cycles	Rating
330	48	10	P

Note:

Legend:

- P** = PASS, the sample MEETS the standard requirement.
- F** = FAIL, the sample DOES NOT MEET the standard requirement.
- NA** = NON APPLICABILE, the requirement/test IS NOT APPLICABLE to the sample.
- NR** = NOT REQUESTED, On Customer request the test is NOT PERFORMED.
- NP** = General note (see details).
- ND** = NOT DECLARED.
- //** = The rating of test CANNOT BE EXPRESSED, see details in test report

END OF TEST REPORT



TEST REPORT: 4787979361.1

APPLICANT

Name: TECNO SPA
Address : Via Milano 28
Casella Postale N.121
Mariano Comense, Co 22066
Italy



Product : Panca Aeris.
UNI EN 16139:2013
(Stability Only)

DATE

Sample in: 06/05/2017
Tests start: 07/05/2017
Tests end: 18/05/2017
Report issue: 18/05/2017

OVERALL DIMENSIONS:

Measured:	Depth:	640 mm;	Height:	900 mm
	Width:	2360 mm	Weight:	61 kg
Nominal:	Depth:	ND;	Height:	ND;
	Width:	ND;	Weight:	ND;
Sample number	951887	Order number: 11767267		

REFERENCE STANDARD

EN 16139:2013 + EN 16139:2013/AC:2013 Furniture. Strength, durability and safety. Requirements for non-domestic seating.

NOTE: On customer's request only the test listed in this report have been performed.

Sample defects before the test: NO VISIBLE DEFECTS

Technician
Rodolfo Sala

Laboratory Manager
Matteo Longoni

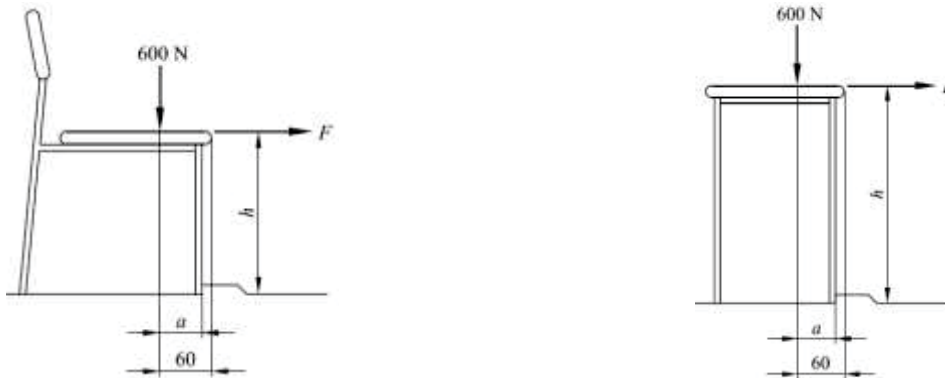
*Note: any copy, even partial, of this report, and any change or alteration to it are strictly forbidden.
The test results listed in this report are relevant only for the tested sample. Sampling performed by the customer.*



TEST REPORT: 4787979361.1

Issued on: 18/5/2017

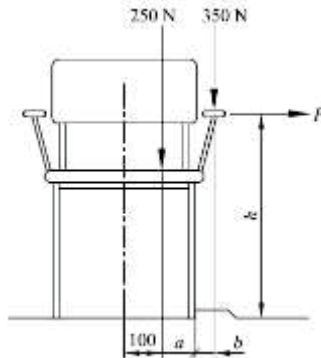
Stability for non swivelling chairs - Forwards overbalancing EN 16139:2013 Cl. 4.3.3 (ref. EN 1022:2005, cl.6.2)



Load seat (N)	Horizontal force (N)	Loading point (mm)	Rating
600	20	60 behind the bearing structure	P

Note: each session has been loaded and each session has been applied the expected horizontal force.

Stability for non swivelling chairs - Sideways overbalancing, seating with arm EN 16139:2013 Cl. 4.3.3 (ref. EN 1022:2005, cl.6.5)



Load seat (N)	Load art (N)	Horizontal force (N)	Loading point (mm)	Rating
250	350	20	100 from the center of the seat	P

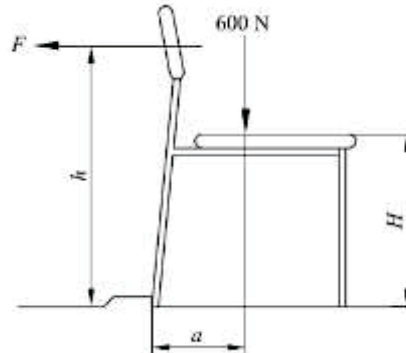
Note:



TEST REPORT: 4787979361.1

Issued on: 18/5/2017

Stability for non swivelling chairs - Rearwards overbalancing, seating with backs EN 16139:2013 Cl. 4.3.3 (ref. EN 1022:2005, cl.6.6)



Load seat (N)	Horizontal force (N)	Loading point	Rating
600	162	Determined by the loading point template	P

Note: The horizontal force has been determined by the following formula: $F = 0,2857 (1.000 - H)$, where H is: 435 mm.

Test performed on 2 seating positions simultaneously.

Legend:

- P** = PASS, the sample MEETS the standard requirement.
- F** = FAIL, the sample DOES NOT MEET the standard requirement.
- NA** = NON APPLICABILE, the requirement/test IS NOT APPLICABLE to the sample.
- NR** = NOT REQUESTED, On Customer request the test is NOT PERFORMED.
- NP** = General note (see details).
- ND** = NOT DECLARED.
- // = The rating of test CANNOT BE EXPRESSED, see details in test report

END OF TEST REPORT



Test Report: 4787979353.1

APPLICANT

Name: TECNO SPA
Address: Via Milano 28
Casella Postale N.121
Mariano Comense, Co 22066
Italy



Product: Panca Aeris - Prove preliminari
ANSI BIFMA X5.4:2012

DATE

Sample in: 19/5/2017
Tests start: 19/5/2017
Tests end: 30/5/2017
Report issue: 30/5/2017

OVERALL DIMENSIONS:

Measured:	Depth:	640 mm;	Height:	900 mm;
	Width:	2360 mm;	Weight:	61.0 kg
Nominal	Depth:	ND;	Height:	ND;
	Width:	ND;	Weight:	ND;
Sample number	951884	Order number: 11767257		

REFERENCE STANDARD

ANSI/BIFMA X5.4:2012 Lounge and Public Seating - Tests.

NOTE: On customer's request only the test listed in this report have been performed.

Sample defects before the test: NO VISIBLE DEFECTS

Tests have been performed on a temperature of 21 ± 2 °C

The tests have been performed on 1 sample as requested by the customer

Sample classified as multiple seating Type C

Technician
Rodolfo Sala

Laboratory Manager
Matteo Longoni

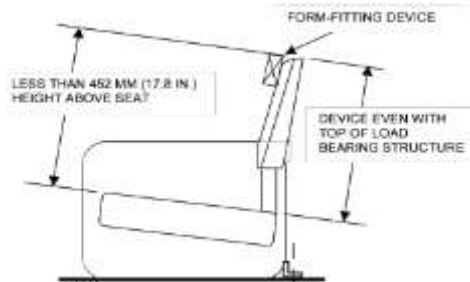


Test Report: 4787979353.1

Issued on: 16/10/2017

Number of sitting place: 4
The backrest tested is PIVOT: NO

Par. 5 Backrest Strength Test - Horizontal - Static



Test has been performed pulling the backrest backwards
Backrest height: 523 mm
Loading pad height measured from the seat: 406 mm
Adjustment devices have been set on the normal condition

Sitting position tested simultaneously	Backrest load (N)	Time of application (sec)	Cycles	Rating
2	667	60	1	P

Note: first test performed on sample;

Sitting position tested simultaneously	Backrest load (N)	Time of application (sec)	Cycles	Rating
2	1112	60	1	P

Note: first test performed on sample;

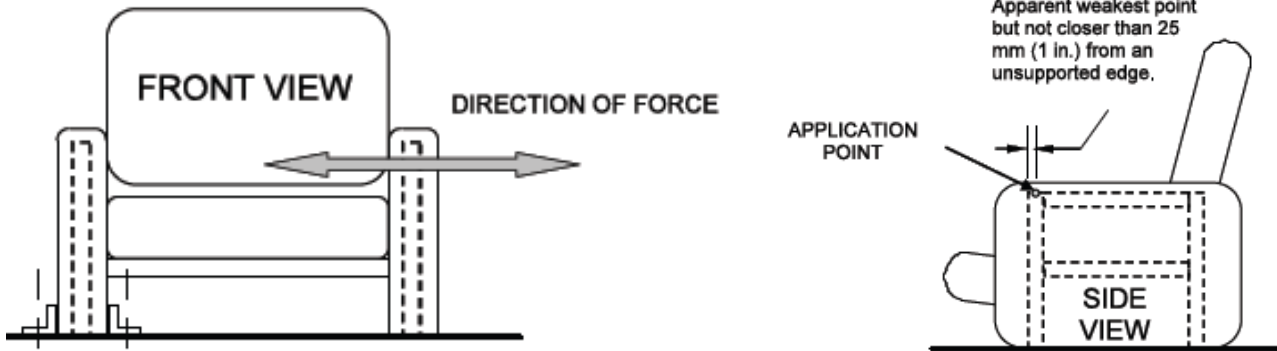


Test Report: 4787979353.1

Issued on: 16/10/2017

Par. 9 Arm Strength Test - Horizontal - Static

Functional and proof load tests were performed on the same armrest. The inward forces were applied on one of the two armrests. Outside forces were applied to the other armrest.



Adjustment devices have been set on the normal condition

Belt Width: 20 mm

Distance from the back of the load application point on the armrest: 150 mm

The test was carried out by pulling the armrest.

Functional load				
Distance between armrests (mm)	Armrest load (N)	Time of application (sec)	Cycles	Rating
< 889	445	60	1	NA
≥ 889	593	60	1	P

Note: second test performed on sample;

Proof load				
Distance between armrests (mm)	Armrest load (N)	Time of application (sec)	Cycles	Rating
< 889	667	60	1	NA
≥ 889	890	60	1	P

Note: second test performed on sample;

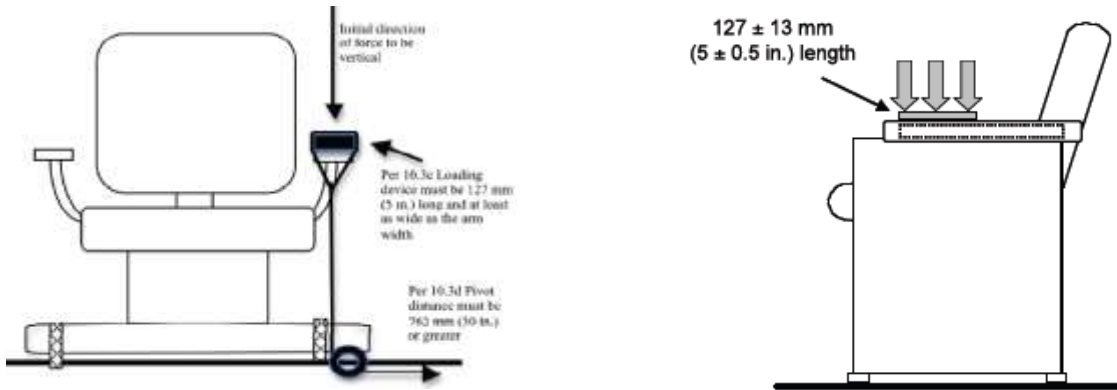


Test Report: 4787979353.1

Issued on: 16/10/2017

Par. 10 Arm Strength Test - Vertical - Static

Functional and proof load tests were performed on the same armrest.



Adjustment devices have been set on the normal condition
Distance from the back of the load application point on the armrest:150 mm

Functional load			
Armrest load (N)	Time of application (sec)	Cycles	Rating
890	60	1	P

Note: third test performed on sample;

Proof load			
Armrest load (N)	Time of application (sec)	Cycles	Rating
1.334	60	1	P

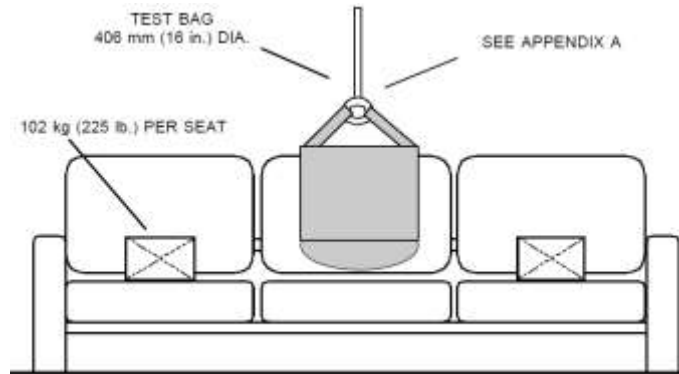
Note: third test performed on sample;



Test Report: 4787979353.1

Issued on: 16/10/2017

Par. 15 Drop Test - Dynamic



Adjustment devices have been set on the normal condition

Functional load					
Applied load to sitting place not tested	Number of sitting place tested	Drop height (mm)	Impact mass (kg)	Cycles	Rating
102	2	152	102	1	P

Note: The test was performed on each seat in sequence; fifth test performed on sample;

Proof load					
Applied load to sitting place not tested	Number of sitting place tested	Drop height (mm)	Impact mass (kg)	Cycles	Rating
102	2	152	136	1	P

Note: The test was performed on each seat in sequence; fifth test performed on sample;



Test Report: 4787979353.1

Issued on: 16/10/2017

Par. 17 Unit Drop Test - Dynamic

Test performed on both ends of the sample
Adjustment devices have been set on the normal condition

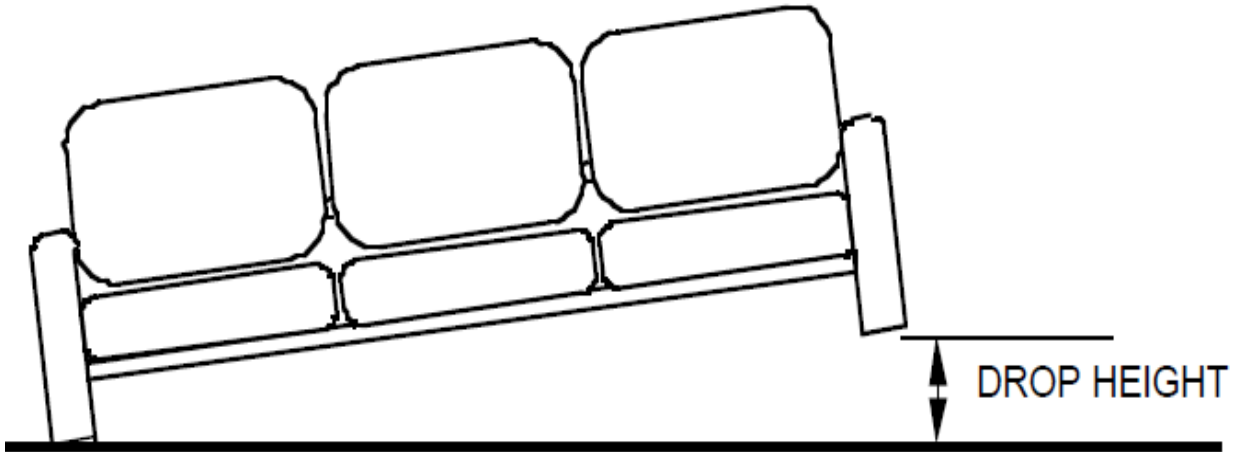


Table with 4 columns: Sample weight (kg), Drop height (mm), Cycles, Rating. It lists weight ranges and corresponding test parameters.

Note: fourth test performed on sample;

Key:

- P = PASS, the sample MEETS the standard requirement.
F = FAIL, the sample DOES NOT MEET the standard requirement.
NA = NON APPLICABILE, the requirement/test IS NOT APPLICABLE to the sample.
NR = NOT REQUESTED, On Customer request the test is NOT PERFORMED.
NP = General note (see details).
ND = NOT DECLARED.
// = The rating of test CANNOT BE EXPRESSED, see details in test report



Test Certificate

This certificate confirms that the

Foam – Ref: Elastofam I 4102/128/FL with Colour Paste & Black Paint

Supplied by

Elastogran UK Limited

has been tested at FIRA International Limited and successfully satisfied the requirements from:

Schedule 1 part I of the Furniture and Furnishings (Fire) (Safety) Regulations 1988, amended 1989 and 1993 (based on BS 5852: 1982 Part 2)

Report reference: TFFLF25854

SIGNATURE

Stephen Cotton

POSITION

Section Leader of Flammability

CERTIFICATE DATE

10 December 2008

For and on behalf of FIRA INTERNATIONAL LIMITED

This certificate only relates to the sample(s) supplied and tested at the time. Re-testing at intervals is recommended and should be subject to agreement between the supplier and the purchaser.



TECHNICAL REPORT



Maxwell Road, Stevenage,
Hertfordshire SG1 2EW, England
Telephone +44 (0) 1438 777700
Facsimile +44 (0) 1438 777800
e-mail: info@fira.co.uk
website: www.fira.co.uk

Elastogran UK Limited
Alfreton Trading Estate
Wimsey Way
Somercotes
Derbyshire
DE55 4NL

Our Ref: **TFFLF25854**
Date: 10 December 2008
Delivery Date: 04 December 2008
Test Dates: 04 – 10 December 2008

For the attention of Mr Gary Jackson

SAMPLE(S) FOR TEST:

One, Foam – Ref: Elastofoam I 4102/128/FL with Colour Paste & Black Paint

Note: The above descriptions are as supplied by the client and have not been verified by FIRA who can take no responsibility for the accuracy of the description.

TEST REQUIREMENTS:

Schedule 1 part I (based on BS 5852: 1982 Part 2)

RESULT:

Pass

FIRA is a UKAS TESTING Laboratory No. 0174

Tests marked "Not UKAS Accredited" in this Report are not included in the UKAS Accreditation Schedule for our laboratory.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

This Report relates to the sample(s) submitted for test and no others. Additions, deletions or alterations are not permitted.

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Tests are carried out on the understanding that neither the Association nor its officers can accept any legal responsibility for information or advice given or opinions expressed whether in response to specific enquiries or otherwise.

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0174

TFFLF25854
Page 1 of 3

FIRA International Limited

A member of the TTL Chiltern Group
of companies

Registered Office:
Chiltern House, Stocking Lane,
Hughenden Valley, High Wycombe,
Buckinghamshire HP14 4ND, UK.

Registered No 3181481 England

TECHNICAL REPORT

DESCRIPTION

Enquiry No: TFFLF25854

Item: One, Foam – Ref: Elastofoam I 4102/128/FL with Colour Paste & Black Paint

The following test results relate only to the ignitability of the combination of materials under the particular conditions of test; they are not intended as a means of assessing the full potential fire hazard of the materials in use.

TEST RESULTS

FURNITURE AND FURNISHINGS (FIRE) (SAFETY) REGULATIONS 1988 - AMENDED 1989 AND 1993 SCHEDULE 1 PART 1 FOR POLYURETHANE FOAM (BASED ON BS 5852: 1982 PART 2)

Initial Inspection: Condition as new

Conditioning: ≥ 4 days at $20 \pm 5^\circ\text{C}$ & $50 \pm 20\%$ rh

Test conditions: 19°C & 38% rh

Test procedure - as detailed in Schedule 1 Part 1 to the above Regulations using the specified FR polyester cover material*

Ignition Source		Ignition/ Non- Ignition	Duration of		
No.	Pos.		Ignition Source	Flames	Smoke/ Smoulder
5	1	PASS (N/I)	3min 42sec	5min 45sec	8min 30sec
	2	PASS (N/I)	3min 21sec	9min 25sec	11min 07sec

Weight loss: 1st Application: 0.022kg
2nd Application: 0.023kg

Extent of damage: Damage did not exceed permitted limits



0174

TFFLF25854
Page 2 of 3



TECHNICAL REPORT

CONCLUSION

On the basis of the test carried out, it is the opinion of this laboratory that this polyurethane slab foam meets the flammability performance requirements of the test specified in Schedule 1 part I of the Furniture and Furnishings (Fire) (Safety) Regulations 1988, amended 1989 and 1993.

Tested by: Barry Worrell

Reported & Approved by: Stephen Cotton
Section leader of flammability



*The test was carried out using a 220gr/m² flame retardant polyester fabric which deviates from the specification stated in Schedule 1 part I of the Regulations. Although this fabric does not fully meet the specification laid down in the Regulations this is regarded as having no significant effect on the test.



0174

TFFLF25854
Page 3 of 3



Protocollo: 15530 / 1

Data Ricevimento: 08-02-2001

Data Esecuzione: 12-03-2001

Data Emissione: 22-03-2001

Denominaz.campione: NERO (ELASTOFOAM)

Spett. TECNO S.P.A.
VIA MILANO, 12
20039 VAREDO (MI)
ITALY

Resistenza ai liquidi freddi (macchie) EN 12720/97

Risultati della prova:

Prodotti	Tempo di esposizione	Valutazione		Valore ammesso Classe E	Osservazioni
		luce diretta	luce diffusa		
Acido acetico (soluz. acquosa 10%)	10 min	5	5	5	nessun difetto
Acetone	-	-	-	-	-
Ammoniaca (soluz. acquosa 10%)	10 min	5	5	5	nessun difetto
Vino rosso	-	-	-	-	-
Acido citrico (soluz. acquosa 10%)	10 min	5	5	4	nessun difetto
Soluzione detergente	1 h	5	5	5	nessun difetto
Caffé (applicato a 80 °C)	1 h	5	5	4	nessun difetto
Cloramina T (soluz. acquosa 2,5%)	10 min	5	5	5	nessun difetto
Inchiostro per timbri	-	-	-	-	-
Etanolo (soluz. acquosa 48%)	-	-	-	-	-
Etile-butile acetato (1:1)	-	-	-	-	-
Olio di oliva	10 min	5	5	5	nessun difetto
Olio di paraffina	-	-	-	-	-
Carbonato di sodio (sol. acquosa 10%)	-	-	-	-	-
Cloruro di sodio (sol. acquosa 15%)	1 h	5	5	5	nessun difetto
Té (applicato a 80 °C)	1 h	5	5	5	nessun difetto
Acqua distillata	1 h	5	5	5	nessun difetto
Birra chiara	1 h	5	5	5	nessun difetto

Annotazioni:

Le sostanze ed i tempi di prova sono quelli previsti dalla classe E del prUNI U41101420.

Il responsabile di reparto



Il direttore
Dott. Ing. Angelo Speranza