

Maxwell Road, Stevenage
Hertfordshire
SG1 2EW, UK

T: +44 (0) 1438 777700
F: +44 (0) 1438 777800
info@fira.co.uk
www.fira.co.uk

Horus Foam Manufacturing Co. Sae

Masterbed
45 Shehab Street
Mohandessen
Giza
Egypt

Our Ref: **TFBDF55889**

Date: 21 January 2015

Delivery Date: 05 December 2014

Test Dates: 22 December – 20 January 2015

For the attention of Antoine Massaad

SAMPLE FOR TEST:

One, Mattress – no reference supplied

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:

BS EN 1957: 2012 Domestic furniture beds and mattresses - durability
BS EN 1957: 2012 Domestic furniture beds and mattresses - edge sit

RESULT:

Informative*
Informative*

**The results of this test are informative only as the above test standard has no guidelines on pass/fail criteria.*

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

Test reports are given to the client in confidence, and may only be reproduced in whole or in part with written permission from FIRA International Limited. Note that the words "**tested by FIRA**" may be used in subsequent publicity for the product; "approved" must **not** be used.

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

This Report is given subject to the Terms of Business of FIRA International Limited which are available at www.fira.co.uk/document/fira-terms-and-conditions.pdf

TECHNICAL REPORT

TEST RESULTS

BS EN 1957: 2012 – Domestic furniture beds and mattresses

The tests required were carried out in accordance with the Standard. Details of the loads applied and their positions of application are retained at FIRA and are available on request.

Item: One, Mattress – no reference supplied

Initial Inspection: No apparent faults

Conditioning: Carried out*

DURABILITY TEST

	Mattress/ Bed Unit Height	Height Change	Hardness Value (40% indentation)	Hardness Change	Firmness Rating	Firmness Change
As received	222mm	--	--	--	--	--
Rolled for 100 cycles	220mm	--	535N	--	6.85	--
Rolled for 30000 cycles	218mm	2	497N	38	3.95	2.9

EDGE SIT TEST

Height of edge as received	229mm
Height of edge after 100 cycles	228mm
Height of edge after 5,000 cycles	224mm

	Maximum indentation at 50N (mm)	Maximum indentation at 200N (mm)	Maximum indentation at 250N (mm)	Maximum indentation at 400N (mm)
Rolled for 100 cycles	14	46	53	73
Rolled for 30 000 cycles	17	47	55	76

TECHNICAL REPORT

COMMENTS

The results obtained indicate that there was a slight change in hardness after the durability test of 7.1%; this suggests that the mattress does not have the propensity to soften noticeably during use. Mattress indentation was not visible over the area in direct contact with the durability test roller. The final examination showed that there was no damage to the top or the bottom surface of the mattress.

A change in firmness after the durability test is expected for mattresses. This is considered not significant for a mattress intended for domestic use, and we believe that it will not affect the item's performance.

The change in height as a result of both the edge sit and the durability tests were 2% and 1% respectively of the original height. Such a change is not considered significant, and we believe that it will not affect the item's performance.

Tested and reported by: Agnieszka Haines

Approved by: Stephen Cotton
Technical Specialist

** Conditioning was carried out in accordance with BS EN 1957: 2012 however the mattresses are stored flat when there is sufficient room to do so, when there is not sufficient room they are stored on their side. When stored on their side they are checked frequently to make sure there is no detrimental effect to the mattress structure from being stored in this way. Once testing has begun the mattress is kept flat to prevent the test results being affected.*

TECHNICAL REPORT

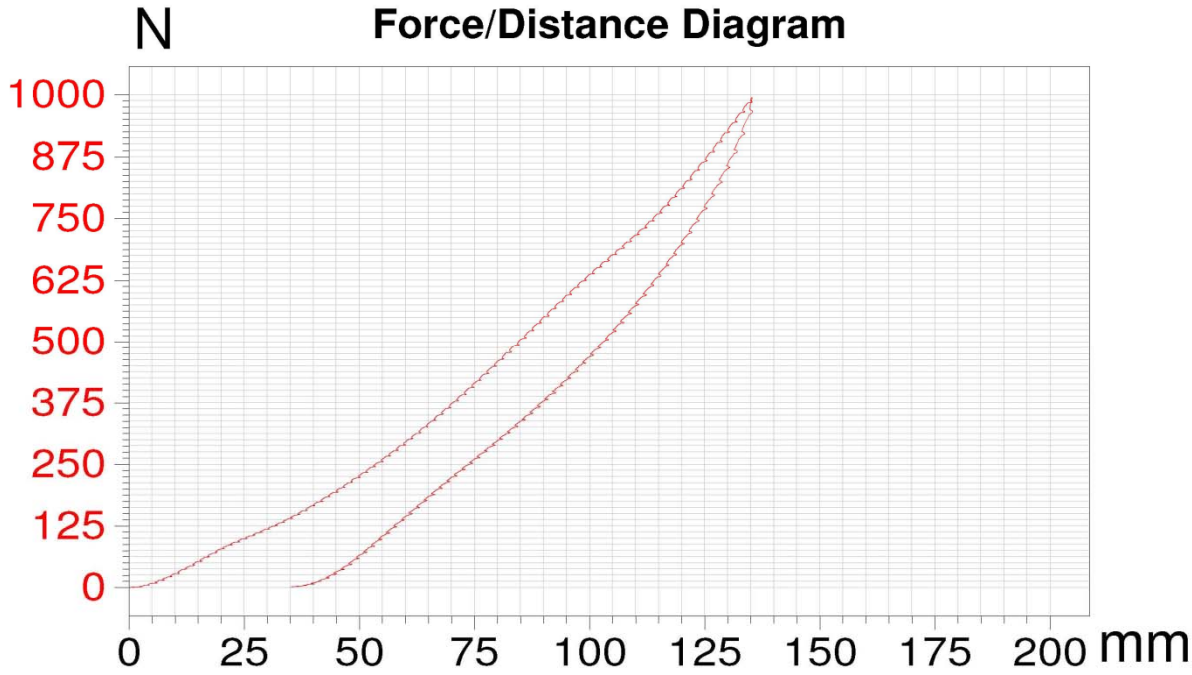


Plate 1: Indentometer results after 100

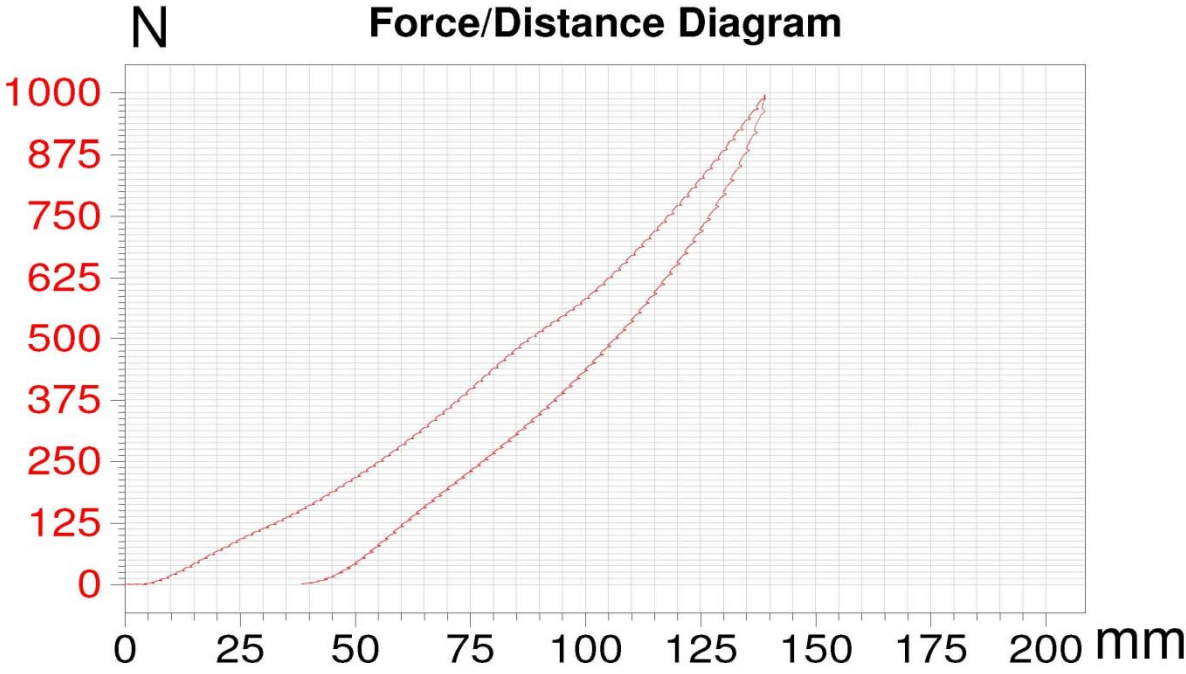


Plate 2: Indentometer results after 30 000

TECHNICAL REPORT

Annex

BS EN 1957 requires the functional characteristics of the bed product to be ascertained before and after durability (roller) test. The measurements are based on the load/deflection curve. The thickness and hardness values, the changes in both, and the firmness ratings are measured and recorded. The height of the bed is recorded as received. The mattress/bed unit is rolled for 100 cycles and initial height, hardness and firmness rating are recorded. The mattress/bed units are then rolled for a further 29,900 cycles and are measured and the results recorded. The durability of bed edge test is carried out whereby the detailed functional characteristics are again measured and recorded. The mattress/bed unit is inspected before and after the durability (roller) test, to ensure any changes caused by the test such as damage to seams, displacement or lumpiness of fillings etc, are detected. Internal inspection of the product, if necessary, is performed only after all tests and measurements are completed.

The roller used for the mattress durability test consists of a roller conforming to the dimensions specified in Clause 5.8 of BS EN 1957: 2012, which allows the application of a 1400N load to be applied to the mattress.

The firmness rating for the product is categorised using a scale of 1 to 10, where 1 is a firm unit and 10 is a soft unit.

The load/deflection curves are obtained by pressing a load pad into the test unit and measuring the associated value of indentation and force simultaneously.

***** End of Report *****