



T0409

Project No: TTL11/0027
 Report No: TZS11/003(rev-1)
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A SANAS accredited Testing Laboratory

TEST REPORT EN 12089: 1997 Determination of Bending Behaviour

Date Received: 21/06/2011	Order no.: PO10062	Test Officer: Arno van der Walt
Test Sponsor : AAAMSA GROUP 2 nd Road HALFWAY HOUSE 1685	Test Applicant: Africhill – ABoard Refrigeration 349 Dacosta Drive Bredell Kempton Park, 1623	
Tel no: (011) 979 1885 Email address: jaco@afrihill.co.za Cell no: 082 857 2270 AAAMSA Affiliation -	Date to be completed – Test 30 / 06 / 2011	

SAMPLE DESCRIPTION

Packaging and form of arrival: Sample arrived without packaging in good order.

Product name:	Africhill .		
Type of product:	0.5 mm Chromadek with 20 kg/m ³ EPS.		
Skin, facing, coating:	0.5 mm Chromadek.		
Date of Sampling:	Unknown.		
Nominal Density:	20 kg/m ³ EPS (core material only)		
Batch code/number:	Not provided		
Sample conditioning:	YES	NO	OTHER:
Specify other:			
Conditioning – and pre-test history of sample received, additional information and sketches: Conditioning details prior to arrival are unknown.			
<i>TTL specimen extraction plan for EN 12089: 1997 in Annexure A</i>			

TEST METHOD DETAILS

EN 12089: 1997 Method used:	Method A	Method B	Special conditions
Nominal specimen thickness (mm):	75		
Specimen width (mm):	100		
Specimen length (mm):	2 200		
Support edge span (mm):	1 200		
Load distribution plates:	Not used		

DISCLAIMER:

Test report and results only relate to product(s) or sample(s) submitted for testing as identified herein. It does not imply TTL approval of the quality and/or performance of the item(s) in question and the results do not apply to any similar item that has not been tested. The Test Report shall not be reproduced except in full, without written approval from TTL or AAAMSA

Tests marked "Not SANAS accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory. Opinion and interpretations expressed herein are outside the scope of SANAS accreditation.

Direction of force during test:	Vertical	
All skins, facings or coatings retained:	C	N/A

SPECIMEN DETAILS

All individual specimen dimensions, masses and calculated densities in Annexure B

Kind of surface treatment if any and/or details of sandwich type specimen/s:
0.5 mm Chromadek top and bottom with 20 kg/m³ EPS core.

	Sample 1	Sample 2	Sample 3
Number of test specimens:	2	-	-
Mean measured density (kg/m ³):	132.3	-	-
Max. measured density (kg/m ³):	132.6	-	-
Min. measured density (kg/m ³):	131.9	-	-
Standard deviation (kg/m ³):	0.28	-	-
Nominal thickness (mm):	75.0	-	-
Note:	Please note that the densities reported in the above table are of the core material including the 0.5 mm Chromadek sheets. Also note that the densities were calculated using the mass of 100 mm by 100mm specimens extracted from the sample.		

Deviations made from **EN 12089: 1997** Clause 6:

The test specimens were 2 200 mm long, thus having an overhang of 500 mm on each side. Only two specimens were delivered for testing.

TEST RESULTS

Environmental conditions during test:	Temperature (°C):	Relative Humidity (%):
	14.2	41

All test results and force-deformation curves for individual specimens in Annexure C

BENDING STRENGTH AND/OR STRESS AT GIVEN DEFLECTION

	Sample 1	Sample 2	Sample 3
Number of tested specimens entered into calculations:	2		
Mean measured bending strength (kPa):	1 780		
Standard deviation for bending strength (kPa):	42.4		
Mean corresponding deflection (mm):	11.0		
Standard deviation for corresponding deflection (mm):	0.42		
Note:	-		

Deviations made from **EN 12089: 1997** Clause 7:

The test specimens were 2 200 mm long, thus having an overhang of 500 mm on each side.

Events which may have affected the results:

The test specimens were 2 200 mm long, thus having an overhang of 500 mm on each side. No loading plates were used.

General comments relating to the test:

Crumpling was present below the loading bar. (See photo on page three)

RESULTS SHALL NOT BE EXTRAPOLATED TO OTHER THICKNESSES

CONCLUSION

The mean bending strength for the tested sample was **1780 kPa** with a mean corresponding deflection of **11.0 mm**.

Estimated uncertainty of reported values (if applicable):

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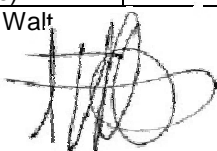
Test officer: A P J van der Walt

Results verified by: Dr. G J Genis

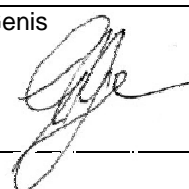
Date: 11 / 07 / 2011

Date: 11 / 07 / 2011

Technical Signatory:

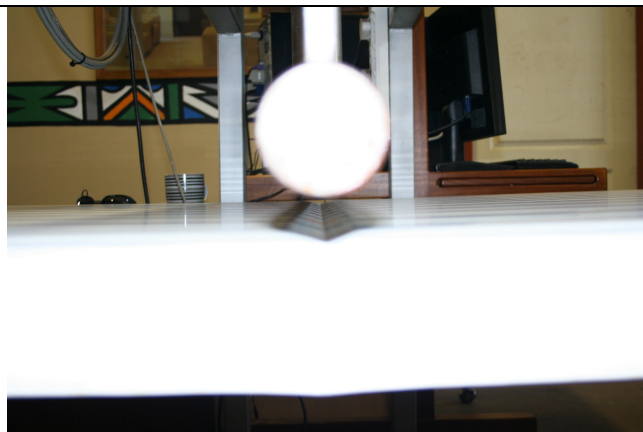


Manager Signatory:



*****END OF REPORT*****

PHOTOS, GRAPHS AND INDIVIDUAL TEST RESULTS.



Note the specimen crumpling under the loading bar.

