VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO

TERMOIZOLIACIJOS MOKSLO INSTITUTAS

(SCIENTIFIC INSTITUTE OF THERMAL INSULATION OF VILNIUS GEDIMINAS TECHNICAL UNIVERSITY)

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LIETUVOS NACIONALINIS AKREDITACIJOS BIURAS

BANDYMAI
ISO/IEC 17025 Nr. LA. 01.028

TEST REPORT

No AL - A - 001/13

19 July 2013

Valid for the tested object only

1. CUSTOMER: JSC "Narbutas Furniture Company", Šeškinės str. 55A, LT-07159, Vilnius, Lithuania.
2. MANUFACTURER: JSC "Narbutas Furniture Company", Šeškinės str. 55A, LT-07159, Vilnius, Lithuania.
3. PRODUCT: Furniture sound absorbing screen, 38 mm thickness.
4. SAMPLES SELECTED: 11 July 2013. Full information about samples was presented in sampling letter dated 11 July 2013 issued by customer.
5. RECEIVING DATE: 11 July 2013. Furniture screen (09 screens of 1252x1000x38 mm size) were selected by the client and supply to arrange full specimen with 11,3 m^2 surface.
6. TESTING DATE: From 15 July 2013 to 16 July 2013.
7. TESTING LOCATION: 210 m^3 volume reverberation room, Linkmenu 28, Vilnius.
8. TESTS WERE CARRIED OUT IN ACCORDANCE WITH:

   LST EN ISO 354:2004 "Measurement of sound absorption in a reverberation room (ISO 354:2003)";

   LST EN ISO 11654:1998 "Acoustics - Sound absorbers for use in buildings - Rating of sound absorption (ISO 11654:1997)".
9. TESTS RESULTS:

Summary of Test Results for Furniture sound absorbing screen		
Characteristics	Applied Testing Method	Obtained values
Sound absorption coefficients measured in 1/3 octave band from 100 to 5000 Hz, α_s	LST EN ISO 354:2004	In Annex 1 table
Practical sound absorption coefficient calculated in 1/1 octave band from 125 to 4000 Hz, α_p	LST EN ISO 11654:1998	In Annex 2 table
Weighted sound absorption coefficient, α_w	LST EN ISO 11654:1998	0,45
Class of the sound absorption	LST EN ISO 11654:1998	D

10. OTHER INFORMATION:

10.1. Expanded uncertainty with coverage factor 2 and the confidence level 95 % for a single number rating α_w is ± 0,05;

10.2. Deviations from EN standards: there are no;

11. ANNEX: Complete test results according to LST EN ISO 354:2004 and rating calculated according to LST EN ISO 11645:1998 on 2 pages.

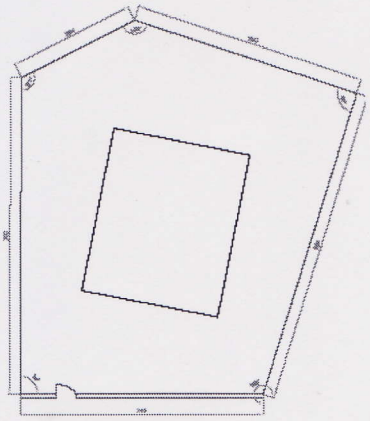
Head of Acoustics Laboratory — Dr. A.Jagniatinskis

Technically responsible for the tests — Dr. B. Fiks

Sound absorption coefficient according to LST EN ISO 354:2006

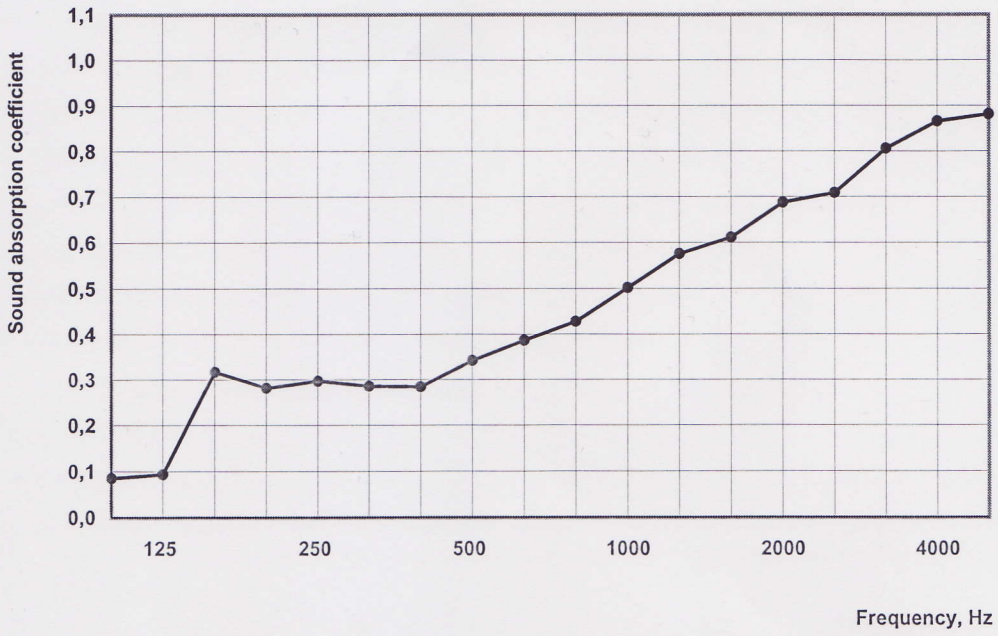
Sound absorption measured in the reverberation room

Manufacturer:	UAB "Narbutas Furniture Company"
Client:	UAB "Narbutas Furniture Company"
Date of test:	2013.07.16
Sample identification:	Furniture screen
Specimen description:	Furniture screen with laminated foam 38 mm thick
Specimen area:	11,3 m^2
Specimen mounting:	"A tipo"- tiesiogiai ant kameros grindų
Test room volume:	210 m^3
Area of room boundaries	215 m^2
Temperature of test room:	Empty 16,2 °C / with specimen 16,8 °C
Relative humidity (Empty / with specimen):	Empty 68 °C / with specimen 72 °C
Sound signals:	MLS in accordance to p. 7.3;
Decay evaluation range:	20 dB in accordance to p. 7.4.1;



Measured sound absorbtion coefficient in 1/3 octave bands

Frequency, Hz	α_s,
100	0,09
125	0,09
160	0,32
200	0,28
250	0,30
315	0,29
400	0,28
500	0,34
630	0,39
800	0,43
1000	0,50
1250	0,58
1600	0,61
2000	0,69
2500	0,71
3150	0,81
4000	0,87
5000	0,88

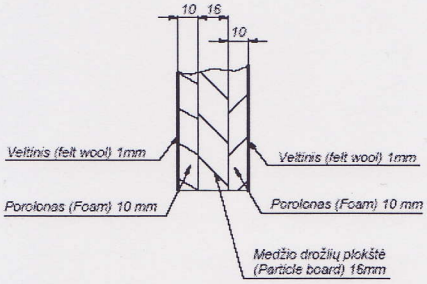


Report file:		Vilnius Gediminas Technical University
ANNEX of Test Report	Annex 1	Scientific Institute of Thermal Insulation
Date: 2013 07 16		Laboratory of Acoustics
Person in charge to perform the test: B. Fiks		Linkmenų 28, LT-08217 Vilnius tel: + 370 (5) 2751145 akustika@vgtu.lt

Sound absorption rating by LST EN ISO 11654:1998

Laboratory measurements of the sound absorption in the reverberation room

Manufacturer:	UAB "Narbutas Furniture Company"	Measurements started:	
Client	UAB "Narbutas Furniture Company"		2013-07-16
Sample erected by:	laboratory staff		
Sample identification:	Furniture screen	Specimen description:	Furniture sound absorbing screen, 38 mm thickness specification presented on picture
Specimen area:	11,30 m^2		
Test specimen mounted:	type "A" on the room floor		
Facility:	5-angle 210 m^3 volume reverberation room		
Test room suface area	215 m^2		
	Empty room	with the sample	
Temperature in the test room:	16,2 °C	16,8 °C	
Relative humidity in the test room	68 %	72 %	
Measurement method:		applying MLS as specified in the 7.3;	
Reverberation time evaluation interval:		20 dB as specified in the 7.4.1 ;	



Rating of sound absorption, calculated in accordace with LST EN ISO 11654:1998

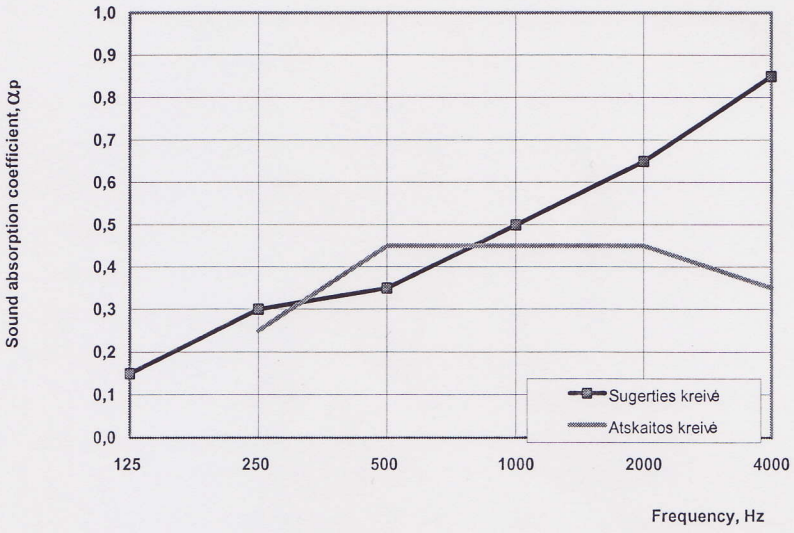
weighted sound absorption coefficient: α_w = **0,45 (H)**

It is strongly recommended to use this single-number rating in combination with the complete sound absorption coefficient curve that can be obtained on request

Practical sound absorption coefficient in the 1/1 octave bands

table 2

Frequency, Hz	α p
125	0,15
250	0,30
500	0,35
1000	0,50
2000	0,65
4000	0,85



Sound absorption class: ***D***

Test fail identification: AL-A-001_13_EN.xls	Vilniaus Gedimino Technikos Universitetas
Report Nr. AL-A-001/13 Annex 2	Scientific institute of Thermal Insulation
Data: 2013 07 16	**Acoustics Laboratory**
Operator B.Fiks	Linkmenų 28, LT-08217 Vilnius, Lithuania
	ph: + 370 (5) 2751145 akustika@vgtu.lt

End of Test report Nr. AL-A-001/13