VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO

TERMOIZOLIACIJOS MOKSLO INSTITUTAS

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

Acoustics Laboratory

Linkmenų 28, 08217 Vilnius, Lithuania

Phone/fax +370 5 2751145, e-mail: akustika@vgtu.lt

LIETUVOS NACIONALINIS AKREDITACIJOS BIURAS

BANDYMAI

ISO/IEC 17025 Nr. LA. 01.028

TEST REPORT

No AL - A - 006/15

06 November 2015

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.
3. PRODUCT: Furniture sound absorbing screen MODUS;
4. SAMPLES SELECTED: 14 October 2015. Full information about samples was presented in sampling letter dated 14 October 2015 issued by customer.
5. RECEIVING DATE: 02 November 2015. Furniture screen MODUS (08 panels of 1600x740x40 mm size) were selected by the client and supply to arrange tested specimen with 9,5 m^2 surface.
6. TESTING DATE: From 04 November 2015 till 06 November 2015.
7. TESTING LOCATION: 210 m^3 volume reverberation room, Linkmenų 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 MODUS		
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	0,55 (H)
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;

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 354:2004

Laboratory measurements of the sound absorption in the reverberation room

Manufacturer: JSC "Narbutas Furniture Company"

Date of test: From 2015 11 04 To 2015 11 06

Client: JSC "Narbutas Furniture Company"

Sample identification: MODUS screen, 40mm.thick

Sample description: Furniture sound absorbing screen with laminated foam.

Specimen area: 9,5 m^2

Specimen mounted: "Type A" mounting - directly agains room floor as presented on Fig 1.

Spesimen erected: by laboratory staff

Test room volume: 210 m^3

Area of test room boundaries: 215 m^2

Temperature of test room:	Empty	with the specimen
	15,1 °C	15,1 °C

Relative humidity in the test room:	Empty	with the specimen
	72 %	73 %

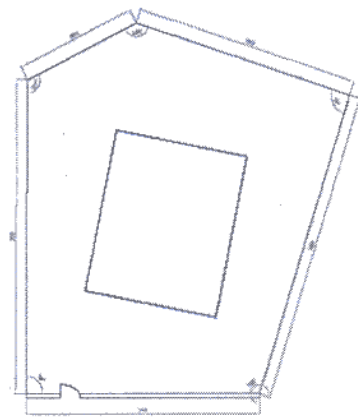


Fig 1.

floor view of 5-angle 210 m^3 volume reverberation r

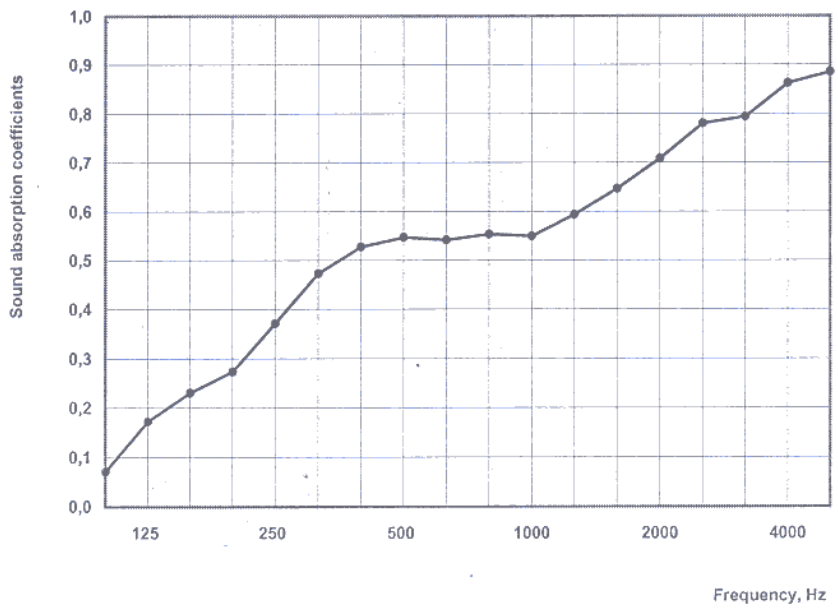
Sound signals: MLS in accordance to p. 7.3

Decay evaluation range: 20 dB in accordance to p. 7.4.1

Measured sound absorption coefficients in 1/3 octave bands

table 1

Frequency, Hz	α_s
100	0,07
125	0,17
160	0,23
200	0,27
250	0,37
315	0,47
400	0,53
500	0,55
630	0,54
800	0,55
1000	0,55
1250	0,59
1600	0,65
2000	0,71
2500	0,78
3150	0,79
4000	0,86
5000	0,88



Report file:	AL-A-006_15_EN Narb.xls	
Report No.	AL-A-006/15	Annex 1
Date:	2015 11 06	
Operator:		B. Fiks

Vilnius Gediminas Technical University
Scientific Institute of Thermal Insulation
Laboratory of Acoustics
Linkmenų 28, LT-08217 Vilnius
phone: + 370 (5) 2751145 akustika@vgtu.lt

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Sound absorption rating according to LST EN ISO 11654:1998

Laboratory measurements of the sound absorption in the reverberation room

Manufacturer:	JSC "Narbutas Furniture Company"	Date of test:	
Client	JSC "Narbutas Furniture Company"	From	2015 11 04
		To	2015 11 06
Sample identification:	MODUS screens 1600x740 mm.		
Sample description:	Furniture sound absorbing screen 40 mm thick		
Specimen area:	9,5 m^2		
Specimen mounted:	"Type A" mounting - directly agains room floor		
Facility	5-angle 210 m^3 volume reverberation room		
Temperature in the test room:	Empty 15,1 °C	with the sample 15,1 °C	
Relative humidity in the test room:	Empty 72 %	with the sample 73 %	

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

Weighted sound absorption coefficient: α_w = 0,55 (H)

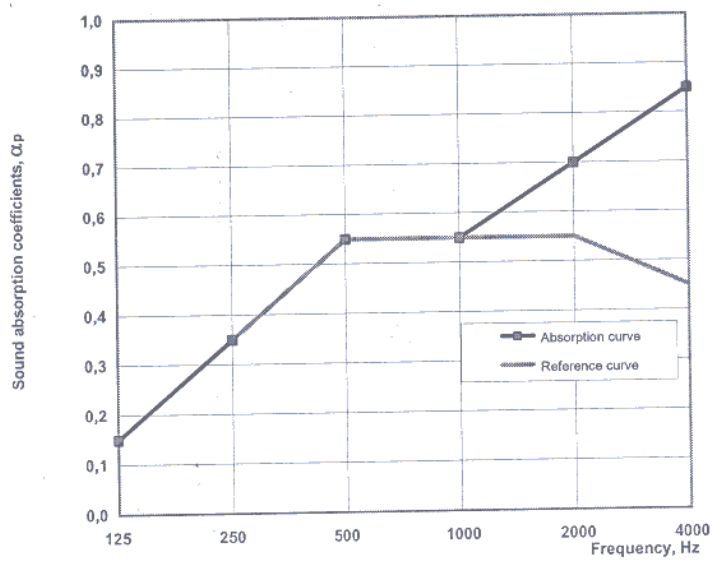
It is strongly recommended to use this single-number rating in combination with the complete sound absorption coefficient curve that is presented in this report

Sound absorption class: *D*

Practical sound absorption coefficients in the 1/1 octave bands

table 2

Frequency, Hz	α_p
125	0,15
250	0,35
500	0,55
1000	0,55
2000	0,70
4000	0,85



Report file:	AL-A-006_15_EN Narb.xls	
Report No.	AL-A-003/15	Annex 2
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Vilnius Gediminas Technical University
Scientific institute of Thermal Insulation
Laboratory of Acoustics
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End of the Test report Nr. AL-A-006/15