



CENTRUM STAVEBNÍHO INŽENÝRSTVÍ a.s.

Testing laboratory of physical properties of materials, structures and buildings - Prague
Testing laboratory No. 1007.4 accredited by ČIA according to ČSN EN ISO/IEC 17025
Pražská 16, 102 00 Praha 10 Hostivař

TEST CERTIFICATE No. 16/078/A028



Project No.: Z-16/078/A028
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2

Name of the test: MEASUREMENT OF SOUND ABSORPTION
COEFFICIENT ACCORDING TO ČSN EN ISO 354,
ČSN EN ISO 11654 and ČSN EN 1793-1

Material/product/structure: Vertical cascade gardens
1) with soil, without plants
2) with soil and ornamental plants

Customer: Němec s.r.o.
V Štíhlách 2031/12
142 00 Praha 4
ID: 25637762

Producer: Němec s.r.o.
V Štíhlách 2031/12
142 00 Praha 4

Sample acceptance date: 19-10-2016
Workplace name: CSI a.s. Prague - AZL 1007.4 - Laboratory of acoustics
Measurement site: Pražská 16, Praha 10 - Hostivař
Test date: 19 and 20-10-2016
Certificate issuance date: 26-10-2016


Ing. Miroslav Meller, CSc
technical manager
of the acoustics laboratory



Ing. Petr Školník
testing laboratory manager

V ZASTOUPENÍ

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1. The test subject

Sound absorption coefficient of vertical cascade gardens. Measurement in laboratory conditions using a reverberation time method in omnidirectional sound impact pursuant to ČSN EN ISO 354, ČSN EN ISO 11654, and ČSN EN 1793-1.

Archive No.: 430-2435/16

2. Tested structures

Information on composition of the sample was adopted from the manufacturer's documents. The indicated weights of the sample (or its parts) are not part of the accredited test. They are used for inspecting and documentation purposes and for reference only.

A. Reg. No. A-688 Vertical cascade garden with soil – without plants

Description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate without plants.

Total thickness: 175 mm + support structure 70 mm

Sample dimensions: 3.50 m × 2.10 m

Test area: 7.35 m²

Surface weight: –

B. Reg. No. A-689 Vertical cascade garden with soil and plants

Description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate and ornamental plants.

Total thickness: 175 mm + support structure 70 mm

Sample dimensions: 3.50 m × 2.10 m

Test area: 7.35 m²

Surface weight: –

3. Sampling and sample preparation, the installation method

The measured material was supplied by the customer. During acceptance of the samples, the type of the product was visually checked against the submitted specifications. The composition of the sample corresponds to the description in section 2. The samples were placed on a side wall of the K4 measuring room. The installation complies with the requirements of ČSN EN ISO 354 ČSN EN 1793-1

4. The testing method

The measurement was executed in laboratory conditions of reverberation rooms in the acoustics test laboratory CSI a.s. in Prague. The sound absorption was measured in the form of a sound absorption coefficient pursuant to ČSN EN ISO 354 and additionally with modifications pursuant to ČSN EN 1793-1.

The measurement results were evaluated pursuant to ČSN EN ISO 11654 and ČSN EN 1793-1. The main outcome of the test, which is objectively related to the measured structure is the **sound absorption coefficient α_s** in the frequency ranges of 1/3 octave and a **weighted sound absorption coefficient α_w** . Additionally, a **one-number sound absorption of the screen DL_α** was evaluated.

The testing standards and related standards and regulations:

[1] ČSN EN ISO 354 Acoustics – Measurement of sound absorption in a reverberation room. (ISO 354:2003).

[2] ČSN EN ISO 11654 Acoustics – Sound absorbers for use in buildings – Rating of sound absorption (EN ISO 11654:1997)



[3] ČSN EN 1793-1 Road traffic noise reducing devices. Test method for determining the acoustic performance. Part 1: Determination of sound absorption by a laboratory method. (EN 1793-1:2013).

[4] ČSN EN 1793-3 Road traffic noise reducing devices. Test method for determining the acoustic performance. Part 3: Normalized traffic noise spectrum. (EN 1793-3:1997).

Test description:

The essence of the test is measurement of the reverberation time in an empty reverberation room and the same room with installed tested sample. The measurement uses an artificial source of the sound, which transmits an intermittent broadband noise signal. The equivalent absorbent area of the sample and the *sound absorption coefficient* α_s are determined from the difference of both measurements. The measurement is executed in 1/3 octave frequency bands in the range from 100 Hz to 8000 Hz. The measurement conditions in the CSI a.s. chambers partially do not comply with the requirements laid down in Article 6.1.1 and 6.1.3 of the standard ČSN EN ISO 354.

To obtain one-number evaluation according to ČSN EN ISO 11654, the octave values of the so-called *practical coefficient of sound absorption* α_p are determined by a specified method and compared with a defined *guide curve*, thus arriving at the one-number value – the *weighted sound absorption coefficient* α_w . Depending on the spectral course, if α_p exceeds the shifted guide curve by 0.25 or more in some of the frequencies, one or more *shape indicators* are added to the α_w in the brackets. If increased absorption occurs on the 250 Hz frequency, it is marked L; on the 500 Hz or 1000 Hz frequency it is marked M and on the 2000 Hz or 4000 it is marked H.

The test results in frequency-depended values of *sound absorption coefficient* α_s pursuant to ČSN EN ISO 354. In case of broadband absorbers, the test also results in a one-number value according to ČSN EN ISO 11654 – *weighted sound absorption coefficient* α_w .

Evaluation of efficiency against transport noise was performed pursuant to ČSN EN 1793-1. The main outcome of the test, which is objectively related to the measured structure, is a *one-number value of the sound absorption coefficient of the screen* DL_a in dB rounded to the nearest whole number.

5. Testing measuring instruments and devices

- laboratory measuring switchboard of the acoustics laboratory, B&K analyser 2144, serial No. 1546033
- measuring microphone with pre-amplifier B&K 4942, serial No. 2330240
- acoustic calibrator B&K 4231, serial No. 2459852
- weather station WS 680 HLR
- measuring reverberating rooms, swivel microphone stands, sound sources

Processing and evaluation of the results were performed by a computer. The sound measurement equipment meets measurement accuracy requirements pursuant to ČSN IEC 651, ČSN EN 60804 and ČSN EN 61260. The metrological accuracy and consistency is proved by the corresponding documentation stored in the test room archive.

6. Normative requirements

The classification system based on one-number values α_w is provided in Table 1. It is described in ČSN EN ISO 11654, Annex B. It is primarily intended for use in a broad frequency band for acoustic panelling, ceilings, etc.

Table 1. Sound absorption class

Sound absorption class	α_w [-]
A	0.90; 0.95; 1.00
B	0.80; 0.85
C	0.60; 0.65; 0.70; 0.75
D	0.30; 0.35; 0.40; 0.45; 0.50; 0.55
E	0.15; 0.20; 0.25
Non-classified	0.00; 0.05; 0.10

It is also possible to categorize acoustic properties for one-number DL_{α} values by application of categories according to ČSN EN 1793-1, which are given in Table 2.

Table 2. Categories of the screens' sound absorption

Category	DL_{α} [dB]
A0	not tested
A1	<4
A2	4 to 7
A3	8 to 11
A4	12 to 15
A5	> 15

7. Results of the test

Results of the accredited testing are given in a numerical and graphic form in an annex, in the measurement records No. A-688 and A-689. The results are clearly arranged in Table 3 and 4.

Table 3. Results of the sound absorption evaluation pursuant to ČSN EN ISO 11654.

Reg. No. of the certificate	Measured structure	Weighted coefficient of sound absorption α_w [-]	Class of the sound absorption
A-688	A. Vertical cascade garden with soil without plants	0.55(L)	D
A-689	B. Vertical cascade garden with soil and plants	0.75	C

Table 4. Evaluation of the screen's sound absorption pursuant to ČSN EN 1793-1.

Reg. No. of the certificate	Measured structure	The screen's sound absorption DL_{α} [dB]	Category
A-688	A. Vertical cascade garden with soil without plants	3	A1
A-689	B. Vertical cascade garden with soil and plants	5	A2

8. Measurement uncertainty

In accordance with ČSN EN ISO 354, the terms of repeatability and reproducibility are preferentially used for expression of measurements in laboratory conditions. The repeatability and reproducibility indicators are values where, with 95% probability, will be lying the absolute values of difference between two repeated test results executed under specified conditions of repeatability and reproducibility. In the resulting the one-number values α_w , the relative determinant deviation of reproducibility does not exceed the value of 10 %.

Eligibility of the sound absorption coefficient measurement was verified by an interlaboratory comparison test in 2012 with a satisfactory certification No. 01-C SI/12.



9. The test laboratory declaration

The test results only concern the given subject of the test. The test certificate cannot be considered the product's approval or certification (e.g. pursuant to Act No. 22/1997 Coll., on technical requirements for products).

Without a written consent of the testing laboratory, the test certificate cannot be reproduced otherwise than complete. When referring to results of the tests, the customer is obliged to state: "Tested by the accredited testing laboratory No. 1007.4 – Centrum stavebního inženýrství a.s. Prague"

It is possible to make a complaint against the content of the certificate within six months after its receipt by the customer. Objections and complaints shall be in writing.

The testing laboratory is authorized to use a reference to an agreement on mutual international recognition of the test and the MRA ILAC logo (Mutual Recognition Arrangement – International Laboratory Accreditation Cooperation).

The testing laboratory:

CENTRUM stavebního inženýrství a.s. - laboratory of acoustics
Testing laboratory of physical properties of materials, structures and buildings - Prague
Testing laboratory No. 1007.4 accredited by ČIA according to ČSN EN ISO/IEC 17025
Pražská 16, 102 00 Praha 10 - Hostivař
Phone No.: 271750450, 281017491
fax: 271751122

Measurement executed by: Ing. Miroslav Meller CSc

Certificate produced by: Ing. Miroslav Meller CSc

Distribution of the certificates

Copies No. 1 and 2 (the original and a copy) – the customer
Copy No 3 – the laboratory archive

The following annexes are an integral part of the test certificate

MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM PURSUANT TO ČSN EN ISO 354

Reg. No.:
A-688

Product: Vertical cascade garden with soil - without plants

Sample description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate, but without plants. Thickness 175 mm + support structure 70 mm.

Sample dimensions: 3.50 m × 2.10 m

Producer: Němec s.r.o. – V Štíhlách 2031/12, Praha 4

The test room: K4

Date of the: 19 October 2016

The room volume: 80.25 m³

Date of installation: 19 October 2016

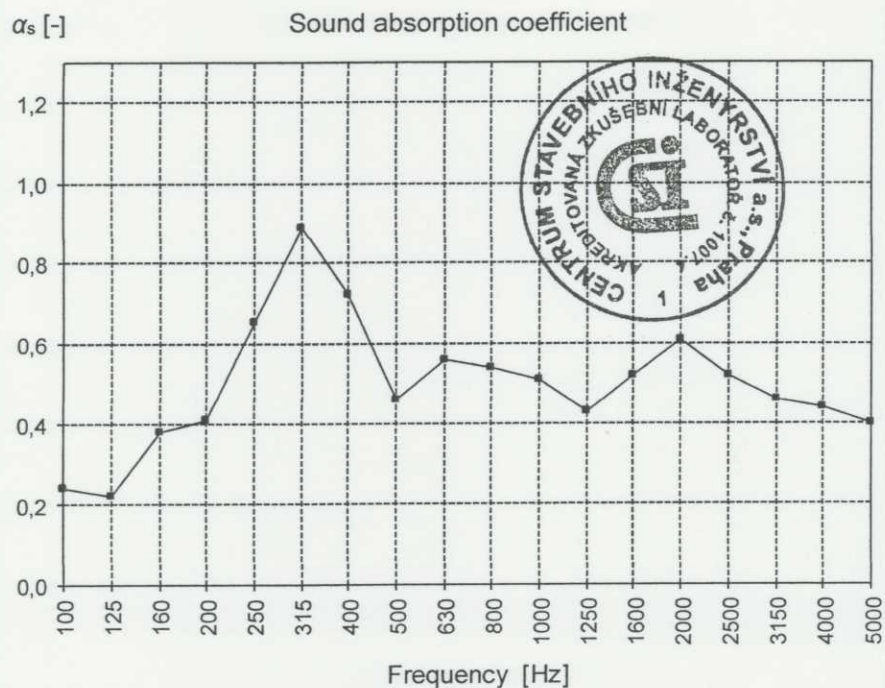
Air temperature: 19.6 °C

Relative humidity: 63 %

Results of measurements using a reverberation method according to ČSN EN ISO 354 and ČSN EN ISO 11654

The sound absorption coefficient α_s in 1/3 octave zones and weighted sound absorption coefficient α_w :

Frequency [Hz]	α_s [-]
100	0.24
125	0.22
160	0.38
200	0.41
250	0.65
315	0.89
400	0.72
500	0.46
630	0.56
800	0.54
1000	0.51
1250	0.43
1600	0.52
2000	0.61
2500	0.52
3150	0.46
4000	0.44
5000	0.40



Evaluation according to ČSN EN ISO 11654:

$\alpha_w = 0.55(L)$

Sample area: 7.35 m²
Surface weight: - kg/m²

Sample thickness: 175+70 mm
Air gap thickness: -



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Phone No.: 281017491, Fax: 271751122
e-mail: meller@csias.cz

Date: 26-10- 2016
Technical manager
of the laboratory:
Ing. M. Meller CSc

CINITEĽ ZVUKOVE POHLTIVOSTI PODLE CSN EN ISO 354

Vyrobek: Vertikalni zahrada se zeminou - bez rostlin
Vyrobce: NemeC s.r.o. - V Stihlach 2031/12 - Praha 4

Plocha vzorku 7.35 m²
Objem mericiho prostoru K4 80.25 m³
Plosna hmotnost vzorku kg/m²
Teplota vzduchu 19.6 °C
Relativni vlhkost 63 %
Datum montaze vzorku 19.10.2016

Popis: Plastove kvetinove nadoby umisteny na vertikalni nosne konstrukci a naplneny substratem bez rostlin.

NAMERENE HODNOTY A VYHODNOCENI PODLE CSN EN ISO 11654:

Pasma [Hz]	A0 [m ²]	A1 [m ²]	A [m ²]	alfa [-]	alfa,p [-]
100	2.18	3.97	1.80	0.24	
125	1.44	3.05	1.60	0.22	0.30
160	1.71	4.51	2.81	0.38	
200	2.13	5.16	3.03	0.41	
250	2.27	7.04	4.77	0.65	0.65
315	2.90	9.45	6.55	0.89	
400	3.01	8.30	5.29	0.72	
500	2.96	6.38	3.42	0.46	0.60
630	3.02	7.11	4.10	0.56	
800	3.53	7.48	3.96	0.54	
1000	3.81	7.53	3.72	0.51	0.50
1250	4.14	7.27	3.14	0.43	
1600	4.16	7.99	3.83	0.52	
2000	4.66	9.12	4.46	0.61	0.55
2500	5.39	9.18	3.79	0.52	
3150	6.29	9.66	3.38	0.46	
4000	7.36	10.61	3.26	0.44	0.45
5000	8.75	11.66	2.92	0.40	
6300	10.44	13.08	2.64	0.36	
8000	13.63	15.41	1.78	0.24	

Stredni cinitel pohltivosti
Stredni cinitel pohltivosti

alfa(250-4000 Hz) = 0.56
NRC(200-2500 Hz) = 0.57

Vazeny cinitel zvukove pohltivosti

alfa(w) = 0.55(L)

Meril: Ing. M. Meller CSC

Kontroloval: Ing. J. Schwarz

**MEASUREMENT OF THE SCREEN'S SOUND ABSORPTION
IN REVERBERATION ROOM ACCORDING TO ČSN EN 1793-1**

Reg. No.:
A-688

Product: Vertical cascade garden with soil - without plants
(absorbing part of the acoustic screen)

Sample description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate, but without plants Thickness 175 mm + support structure 70 mm.

Sample dimensions: 3.50 m × 2.10 m

Producer: Němec s.r.o. – V Štíhlách 2031/12, Praha 4

The test room: K4

Date of the test: 19 October 2016

The room volume: 80.25 m³

Date of installation: 19 October 2016

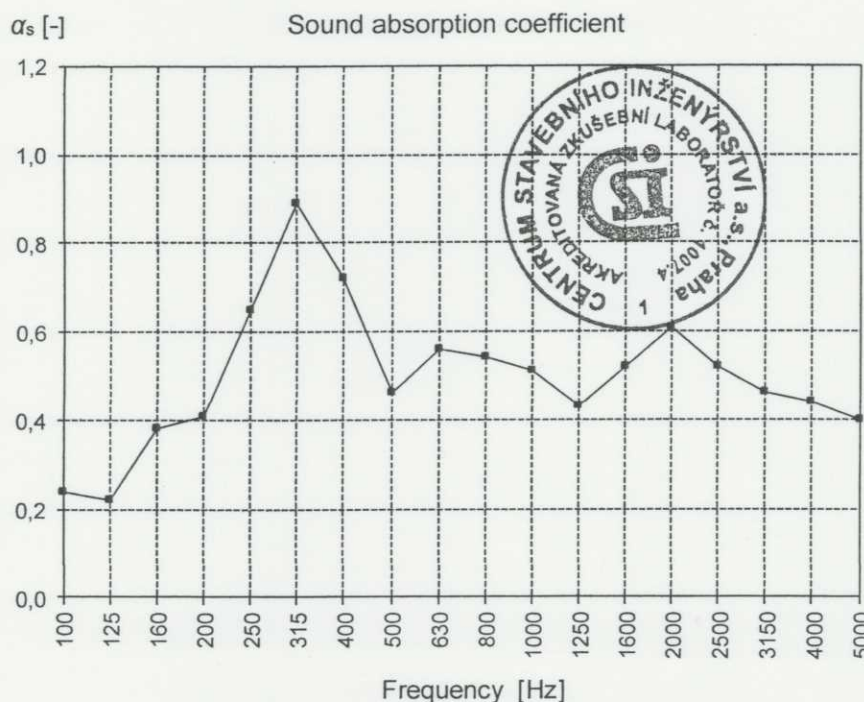
Air temperature: 19.6 °C

Relative humidity: 63 %

Results of measurements using a reverberation method according to ČSN EN ISO 354 and ČSN EN 1793-1

The sound absorption coefficient α_s in 1/3 octave zones and one-number value of sound absorption coefficient of the screen DL_α :

Frequency [Hz]	α_s [-]
100	0.24
125	0.22
160	0.38
200	0.41
250	0.65
315	0.89
400	0.72
500	0.46
630	0.56
800	0.54
1000	0.51
1250	0.43
1600	0.52
2000	0.61
2500	0.52
3150	0.46
4000	0.44
5000	0.40



Evaluation according to ČSN EN 1793-1:

$DL_\alpha = 3$ dB

Sample area: 7.35 m²
Surface weight: - kg/m²

Sample thickness: 175+70 mm
Air gap thickness: -



Centrum stavebního inženýrství a.s. - laboratory of acoustics
Test laboratory of physical properties of materials, structures
and buildings Test laboratory No. 1007.4 accredited by ČIA
Pražská 16, 102 00 Praha 10 – Hostivař
Phone No.: 281017491, Fax: 271751122
e-mail: meller@csias.cz

Date: 26-10- 2016
Technical manager
of the laboratory:
Ing. M. Meller CSc

ZVUKOVA POHLTIVOST CLONY PODLE EN 1793-1

Stanoveno ze zmerenych hodnot cinitele pohltivosti podle ISO 354

Vyrobek: Vertikalni zahrada se zeminou - bez rostlin

Vyrobce: Nemec s.r.o. - V Stihlach 2031/12 - Praha 4

Popis: Plastove kvetinove nadoby umisteny na vertikalni nosne konstrukci a naplneny substratem bez rostlin.
Tl. steny 175 mm + nosna konstrukce 70 mm.

VYPOCTENE HODNOTY:

Pasmo [Hz]	Li [dB]	alfa [-]	alfa * 10 ^(Li/10)	10 ^(Li/10)
100	-20	0.24	0.00240	0.01000
125	-20	0.22	0.00220	0.01000
160	-18	0.38	0.00602	0.01585
200	-16	0.41	0.01030	0.02512
250	-15	0.65	0.02055	0.03162
315	-14	0.89	0.03543	0.03981
400	-13	0.72	0.03609	0.05012
500	-12	0.46	0.02902	0.06310
630	-11	0.56	0.04448	0.07943
800	-9	0.54	0.06798	0.12589
1000	-8	0.51	0.08083	0.15849
1250	-9	0.43	0.05413	0.12589
1600	-10	0.52	0.05200	0.10000
2000	-11	0.61	0.04845	0.07943
2500	-13	0.52	0.02606	0.05012
3150	-15	0.46	0.01455	0.03162
4000	-16	0.44	0.01105	0.02512
5000	-18	0.40	0.00634	0.01585
Suma:			0.54790	1.03747

VYHODNOCENI PODLE EN 1793-1:

Jednociselna velicina pohltivosti clony
- po zaokrouhleni na cele cislo

DL(alfa) = 3.3 dB
DL(alfa) = 3 dB

Provedl: Ing. M. Meller CSc

Kontroloval: Ing. J. Schwarz

MEASUREMENT OF SOUND ABSORPTION IN A REVERBERATION ROOM PURSUANT TO ČSN EN ISO 354

Reg. No.:
A-689

Product: Vertical cascade garden with soil and plants

Sample description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate and ornamental plants. Thickness 175 mm + support structure 70 mm.

Sample dimensions: 3.50 m × 2.10 m

Producer: Němec s.r.o. – V Štíhlách 2031/12, Praha 4

The test room: K4

Date of the test: 19 October 2016

The room volume: 80.25 m³

Date of installation: 19 October 2016

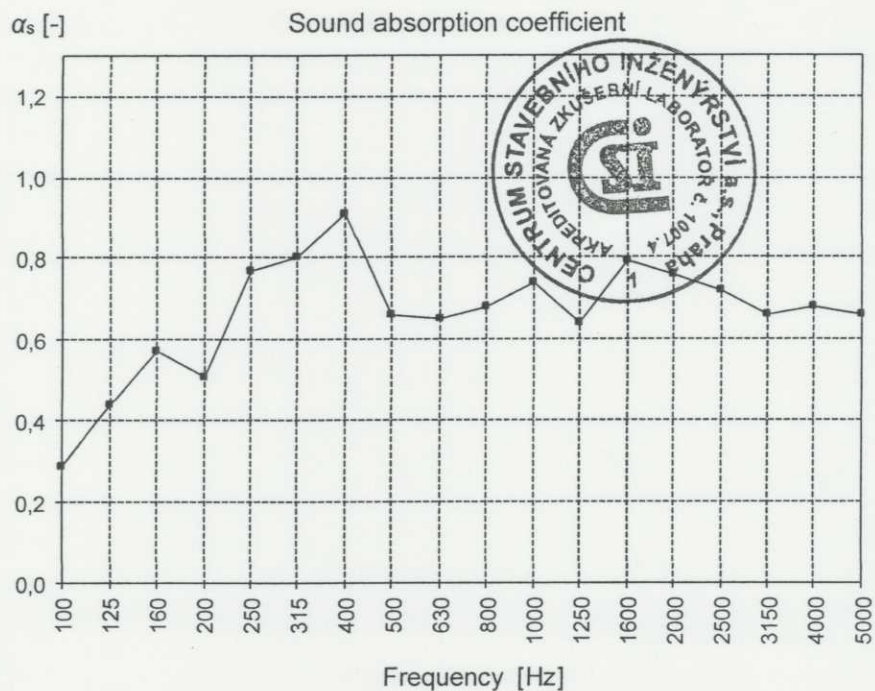
Air temperature: 19.6 °C

Relative humidity: 63 %

Results of measurements using a reverberation method according to ČSN EN ISO 354 and ČSN EN ISO 11654

The sound absorption coefficient α_s in 1/3 octave zones and weighted sound absorption coefficient α_w :

Frequency [Hz]	α_s [-]
100	0.29
125	0.44
160	0.57
200	0.51
250	0.77
315	0.80
400	0.91
500	0.66
630	0.65
800	0.68
1000	0.74
1250	0.64
1600	0.79
2000	0.76
2500	0.72
3150	0.66
4000	0.68
5000	0.66



Evaluation according to ČSN EN ISO 11654:

$\alpha_w = 0.75$

Sample area: 7.35 m²
Surface weight: - kg/m²

Sample thickness: 175+70 mm
Air gap thickness: -



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e-mail: meller@csias.cz

Date: 26-10-2016
Technical manager of the laboratory:
Ing. M. Meller CSC

CINITEL ZVUKOVÉ POHLTIVOSTI PODLE CSN EN ISO 354

Vyrobek: Vertikální zahrada se zemínou a rostlinami
Vyrobce: Nemeč s.r.o. - V Stihlách 2031/12 - Praha 4

Plocha vzorku 7.35 m²
Objem meričního prostoru K4 80.25 m³
Plošná hmotnost vzorku kg/m²
Teplota vzduchu 19.4 °C
Relativní vlhkost 58 %
Datum montáže vzorku 20.10.2016

Popis: Plastové květinové nádoby umístěny na vertikální nosné konstrukci a naplněny substrátem a osazeny rostlinami.

NAMĚŘENÉ HODNOTY A VYHODNOCENÍ PODLE CSN EN ISO 11654:

Pásmo [Hz]	A0 [m ²]	A1 [m ²]	A [m ²]	alfa [-]	alfa,p [-]
100	2.18	4.33	2.15	0.29	
125	1.44	4.64	3.20	0.44	0.45
160	1.71	5.86	4.15	0.57	
200	2.13	5.89	3.76	0.51	
250	2.27	7.95	5.67	0.77	0.70
315	2.90	8.81	5.91	0.80	
400	3.01	9.67	6.65	0.91	
500	2.96	7.80	4.84	0.66	0.75
630	3.02	7.80	4.78	0.65	
800	3.53	8.52	4.99	0.68	
1000	3.81	9.25	5.44	0.74	0.70
1250	4.14	8.81	4.67	0.64	
1600	4.16	9.96	5.80	0.79	
2000	4.66	10.28	5.62	0.76	0.75
2500	5.40	10.70	5.31	0.72	
3150	6.29	11.17	4.88	0.66	
4000	7.36	12.34	4.98	0.68	0.65
5000	8.75	13.63	4.88	0.66	
6300	10.45	14.72	4.27	0.58	
8000	13.63	18.24	4.61	0.63	

Střední cínitel pohltivosti
Střední cínitel pohltivosti

alfa(250-4000 Hz) = 0.73
NRC(200-2500 Hz) = 0.72

Vážený cínitel zvukové pohltivosti

alfa(w) = 0.75

Meril: Ing. M. Meller CSc

Kontroloval: Ing. J. Schwarz

**MEASUREMENT OF THE SCREEN'S SOUND ABSORPTION
IN REVERBERATION ROOM ACCORDING TO ČSN EN 1793-1**

Reg. No.:
A-689

Product: Vertical cascade garden with soil and plants
(absorbing part of the acoustic screen)

Sample description: The sample was built of plastic profiles and plant pots on a vertical support frame from OSB. The sample was located on a side wall of the K4 chamber. The vertical garden consists of plant pots with a substrate and ornamental plants. Thickness 175 mm + support structure 70 mm.

Sample dimensions: 3.50 m × 2.10 m

Producer: Němec s.r.o. – V Štíhlách 2031/12, Praha 4

The test room: K4

Date of the test: 20 October 2016

The room volume: 80.25 m³

Date of installation: 20 October 2016

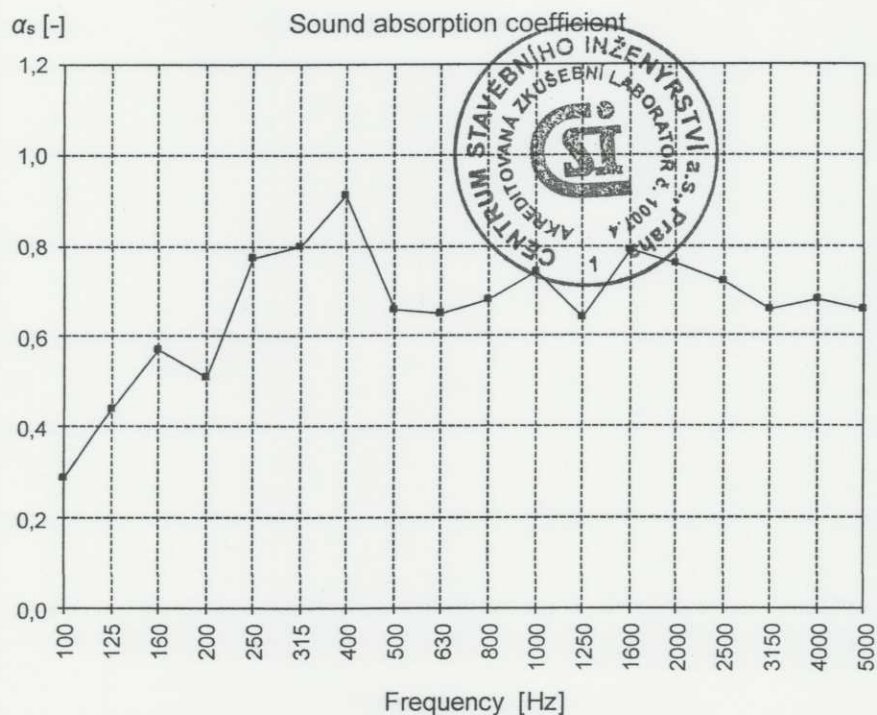
Air temperature: 19.4°C

Relative humidity: 58 %

Results of measurements using a reverberation method according to ČSN EN ISO 354 and ČSN EN 1793-1

The sound absorption coefficient α_s in 1/3 octave zones and one-number value of sound absorption coefficient of the screen DL_α :

Frequency [Hz]	α_s [-]
100	0.29
125	0.44
160	0.57
200	0.51
250	0.77
315	0.80
400	0.91
500	0.66
630	0.65
800	0.68
1000	0.74
1250	0.64
1600	0.79
2000	0.76
2500	0.72
3150	0.66
4000	0.68
5000	0.66



Evaluation according to ČSN EN 1793-1:

$DL_\alpha = 5$ dB

Sample area: 7.35 m²
Surface weight: - kg/m²

Sample thickness: 175+70 mm
Air gap thickness: -



Centrum stavebního inženýrství a.s. - laboratory of acoustics
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e-mail: meller@csias.cz

Date: 26-10- 2016
Technical manager
of the laboratory:
Ing. M. Meller CSc

ZVUKOVA POHLTIVOST CLONY PODLE EN 1793-1

Stanoveno ze zmerenych hodnot cinitele pohltivosti podle ISO 354

Vyrobek: Vertikalni zahrada se zeminou a rostlinami
Vyrobce: Nemec s.r.o. - V Stihlach 2031/12 - Praha 4

Popis: Plastove kvetinove nadoby umisteny na vertikalni nosne konstrukci a naplneny substratem a osazeny rostlinami.
Tl. steny 175 mm + nosna konstrukce 70 mm.

VYPOCTENE HODNOTY:

Pasma [Hz]	Li [dB]	alfa [-]	alfa * 10 ^(Li/10)	10 ^(Li/10)
100	-20	0.29	0.00290	0.01000
125	-20	0.44	0.00440	0.01000
160	-18	0.57	0.00903	0.01585
200	-16	0.51	0.01281	0.02512
250	-15	0.77	0.02435	0.03162
315	-14	0.80	0.03185	0.03981
400	-13	0.91	0.04561	0.05012
500	-12	0.66	0.04164	0.06310
630	-11	0.65	0.05163	0.07943
800	-9	0.68	0.08561	0.12589
1000	-8	0.74	0.11728	0.15849
1250	-9	0.64	0.08057	0.12589
1600	-10	0.79	0.07900	0.10000
2000	-11	0.76	0.06037	0.07943
2500	-13	0.72	0.03609	0.05012
3150	-15	0.66	0.02087	0.03162
4000	-16	0.68	0.01708	0.02512
5000	-18	0.66	0.01046	0.01585
Suma:			0.73155	1.03747

VYHODNOCENI PODLE EN 1793-1:

Jednociselna velicina pohltivosti clony DL(alfa) = 5.3 dB
- po zaokrouhleni na cele cislo DL(alfa) = 5 dB

Provedl: Ing. M. Meller CSc

Kontroloval: Ing. J. Schwarz



Specimen location in the test room.