

Cabana 1



Cabana 1, stille werkplek voor prive telefoongesprekken of video conferenties.

Afmeting buitenkant: 96 x 96 x 230 cm (B x D x H).

Afmeting binnenkant: 82 x 82 x 216 cm (B x D x H).

Gewicht: 190 kg.

Frameloos met verticaal gestoffeerde panelen.

Wanden en plafond: Geluidsabsorberend sandwichpaneel met akoestische isolatie.

Vloer: antraciet zwart tapijt.

Deur: Gehard glas rechts draaiend.

Deurbeslag: Zwart.

Ventilatie: Sensor geactiveerd 1 ventilator aan de onderzijde en een ventilator in het plafond.

Verlichting: Sensor geactiveerd LED neutraal wit.

Plankje: Zwart melamine tegen de zij en achterwand inclusief P&P unit.

Standaard stoffen: Sealife, Jet, Roccia en Facet.

Cabana 2



Cabana 2, stille werkplek voor prive telefoongesprekken of video conferenties.

Afmeting buitenkant: 120 x 120 x 230 cm (B x D x H).

Afmeting binnenkant: 104 x 104 x 216 cm (B x D x H).

Gewicht: 210 kg.

Frameloos met verticaal gestoffeerde panelen.

Wanden en plafond: Geluidsabsorberend sandwichpaneel met akoestische isolatie.

Vloer: antraciet zwart tapijt.

Deur: Gehard glas rechts draaiend.

Deurbeslag: Zwart.

Ventilatie: Sensor geactiveerd 1 ventilator aan de onderzijde en een ventilator in het plafond.

Verlichting: Sensor geactiveerd LED neutraal wit.

Plankje: Zwart melamine tegen de zij en achterwand inclusief P&P unit.

Standaard stoffen: Sealife, Jet, Roccia en Facet.

Cabana 3



Cabana 3, stille werkplek voor prive telefoongesprekken of video conferenties.

Afmeting buitenkant: 180 x 140 x 230 cm (B x D x H).

Afmeting binnenkant: 166 x 126 x 216 cm (B x D x H).

Gewicht: 260 kg.

Frameloos met verticaal gestoffeerde panelen.

Wanden en plafond: Geluidsabsorberend sandwichpaneel met akoestische isolatie.

Vloer: antraciet zwart tapijt.

Deur: Gehard glas rechts draaiend aan de rechterkant van de cabine.

Deurbeslag: Zwart.

Ventilatie: Sensor geactiveerd 1 ventilator aan de onderzijde en een ventilator in het plafond.

Verlichting: Sensor geactiveerd LED neutraal wit boven de werkplek.

De cabine is eenvoudig dieper te maken, ook nog achteraf, breedte van 20 tot 60 cm.

Standaard stoffen: Sealife, Jet, Roccia en Facet.

Cabana 4



Cabana 4, overleg ruimte.

Afmeting buitenkant: 240 x 180 x 230 cm (B x D x H).

Afmeting binnenkant: 226 x 166 x 216 cm (B x D x H).

Gewicht: 330 kg.

Frameloos met verticaal gestoffeerde panelen.

Wanden en plafond: Geluidsabsorberend sandwichpaneel met akoestische isolatie.

Vloer: antraciet zwart tapijt.

Deur: Gehard glas rechts draaiend in het midden van de voorzijde.

Deurbeslag: Zwart.

Ventilatie: Sensor geactiveerd 1 ventilator aan de onderzijde en 2 ventilatoren in het plafond.

Verlichting: Sensor geactiveerd LED neutraal wit in het midden van de cabine.

De cabine is eenvoudig dieper te maken, ook nog achteraf, breedte van 20 tot 60 cm.

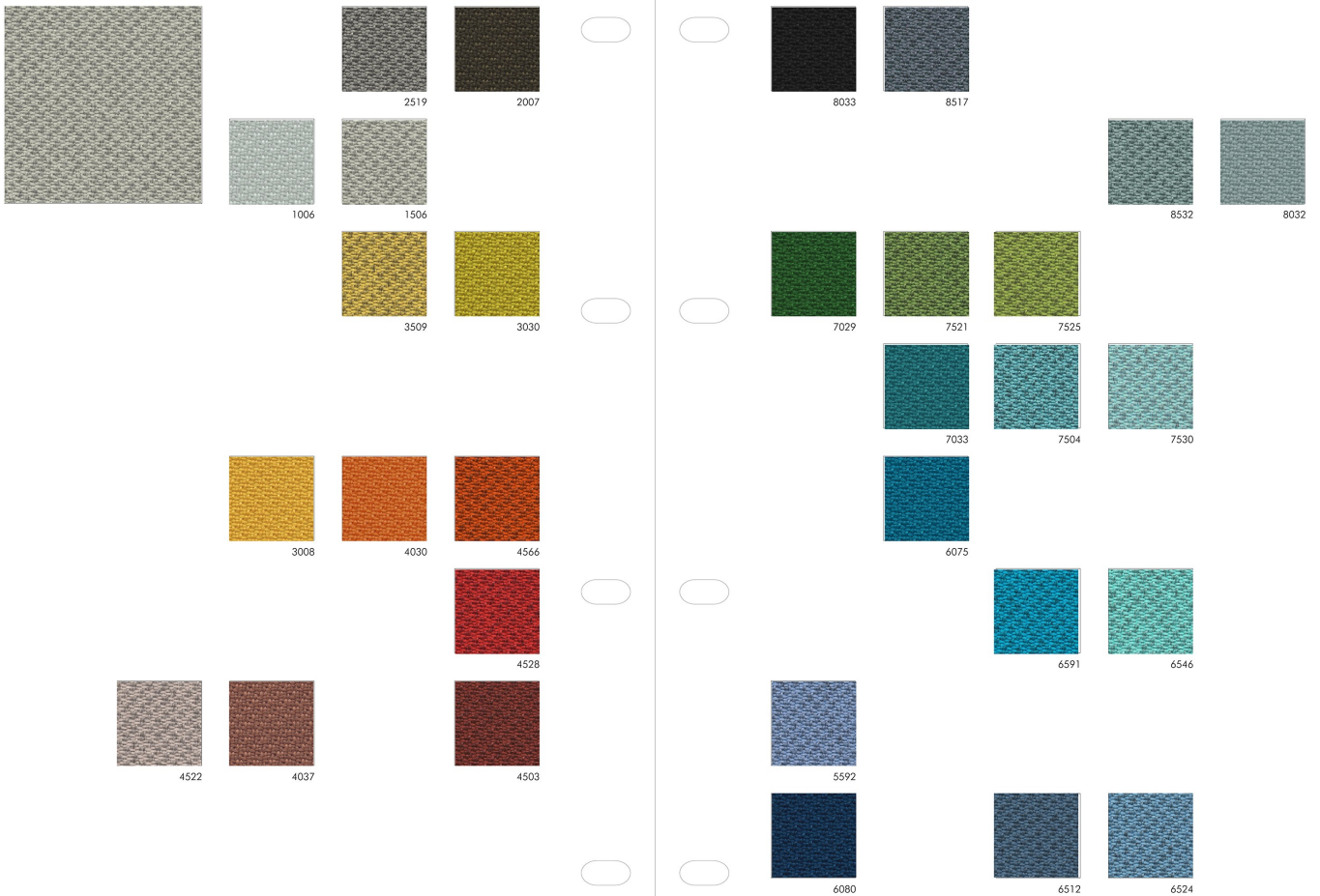
Optioneel zijn er een set banken, een koof aan de achterzijde en een tafeltje.

Standaard stoffen: Sealife, Jet, Roccia en Facet.

Sealife stofkleuren

De standaard stoffen, Jet, Roccia en Facet zijn inmiddels bekend, wij hebben er een stof aan toegevoegd, Sealife, een stof die gemaakt wordt van petflessen die uit de oceaan worden gehaald.

SEALIFE





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Testing Laboratory No. 1018.3
accredited by the Czech Accreditation Institute as per ČSN EN ISO/IEC 17025:2018



No. 040-074061

on test – Measurement of speech level reduction according to ISO 23351-1:2020

REPORT

Test sample: **CUBE CALL NF acoustic telephone box**

Job order no.: **Z040230084**

Number of the Test report pages including the front page: 6
Number of annexes/pages: 2/3

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printed copies: **3**



Teplice, on 14/03/2023

Declaration: 1) The test results given in this protocol relate only to the test item and do not replace other documents
2) This report may be reproduced only as a whole, otherwise the written permission of the testing laboratory is required.
3) The laboratory bears no responsibility for the result if it may have been affected by the information provided by the client.

The information on the test conditions and the test equipment used is mentioned in the test report. The instrumentation including the meters are verified and calibrated as specified in the applicable Teplice Test Institute schedule

3.1 Technical description of the test

The measuring was performed in the reverberation room of the TZUS s.p. construction acoustics laboratory in Teplice.

The speech level reduction was measured according to standard ISO 23351-1:2020. The standard describes a laboratory method to compare various types of furniture ensembles and enclosures with regard to their ability to reduce speech level of a user speaking inside this product (enclosure). According to this standard, the sound power level is measured in two scenarios: 1) without the enclosure and 2) with the enclosure. During scenario 1), a test sound signal is generated by a noise source in an empty room while the enclosure is outside the reverberation chamber. With scenario 2), a test sound signal is generated by a noise source inside the enclosure in place of the user. Speech level reduction is the difference between the sound power levels measured in the two scenarios in 1/1-octave frequency bands from 125 Hz to 8 000 Hz. Speech level reduction is a single-number quantity that expresses the corresponding reduction in A-weighted (human ear) sound power level of standard speech within the entire frequency range from 125 Hz to 8 000 Hz. The normative method is applicable for enclosed enclosures and open furniture ensembles, which serve one or several occupants. According to ISO 23351-1:2020, the method utilizing the equivalent absorption area of the reverberation room, called the direct method, was selected.

The acoustic power level of the tested noise source in each one-third octave band at the reference environmental conditions is calculated using the following equation:

$$L_W = \overline{L_{p(ST)}} + \left\{ 10 \lg \frac{A}{A_0} \text{ dB} + 4,34 \frac{A}{S} \text{ dB} + 10 \lg \left(1 + \frac{S \times c}{8 \times V \times f} \right) \text{ dB} + C_1 + C_2 - 6 \text{ dB} \right\}$$

where $L_{p(ST)}$ is the corrected mean value of the time-averaged sound pressure in the one-third octave band in the test room during operation of the test sound source, in decibels;

A is the equivalent absorption area of the room, in square metres;

$$A = \frac{55,26}{c} \left(\frac{V}{T_{60}} \right)$$

A_0 1 m²;

S is the total surface area of the reverberation chamber, in square meters;

c is the speed of sound, in meters per second, at the air temperature in the reverberation

room θ , in degrees Celsius, at the time of the test,

$$c = 20,05 \sqrt{273 + \theta}$$

V is the volume of the reverberation test room, in cubic metres;

f is mean measurement frequency, in hertz;

C_1 is reference quantity correction, in decibels, which takes into account the difference between

the reference quantities used for the sound pressure level and the sound power level and is the function of the typical air impedance at the reference conditions at the time and location of the measurement:



$$C_1 = -10 \lg \frac{p_s}{p_{s,0}} \text{ dB} + 5 \lg \left(\frac{273,15 + \theta}{\theta_0} \right) \text{ dB}$$

C_2 is the radiation impedance correction, in decibels, which converts the actual sound power at the environmental conditions at the time and location of the measurement to

the sound power at the reference environmental conditions, the value shall be obtained from the corresponding test code, however, if the test code for noise is not available, the following equation applies for a monopole type noise source and it is the mean value for other sources,

$$C_2 = -10 \lg \frac{p_s}{p_{s,0}} \text{ dB} + 15 \lg \left(\frac{273,15 + \theta}{\theta_1} \right) \text{ dB}$$

where

p_s is the static pressure in the test room at the time of the test, in kilopascals;
 $p_{s,0}$ is the reference static pressure, 101.325 kPa;
 θ_t is the temperature of air in the test room at the time of the test, in degrees Celsius;
 θ_0 314 K;
 θ_1 296 K.

The level of reduction by the tested enclosure is determine as follows

$$D_i = L_{W,P,1,i} - L_{W,P,2,i}$$

where

$L_{W,P,1,i}$ is the sound power level in decibels radiated from the reference enclosure when measured in the scenario without the sample;
 $L_{W,P,2,i}$ is the sound power level in decibels radiated from the reference enclosure when measured in the scenario with the sample;

The speech level reduction is determined using a mathematical transformation, where the sound power level $L_{W,P,1,i}$ is replaced by the normalized speed sound power level $L_{W,S,1}$ according to Table 1. In this case, the sound power level radiated by the test sample (enclosure) $L_{W,S,2,i}$ determined using the following formula:

$$L_{W,S,2,i} = L_{W,S,1,i} - D_i$$

Table 1 Unweighted sound power levels of gender non-specific speech

	f Hz						
	125	250	500	1 000	2 000	4 000	8 000
$L_{W,S,1}$ [dB re 1 pW]	60,9	65,3	69,0	63,0	55,8	49,8	44,5



The weighted sound power level (filter A – human ear) radiated by the measured sample (enclosure) within 125 Hz to 8 000 Hz is determined using:

$$L_{W,S,A,2} = 10 \log_{10} \left(\sum_{i=1}^7 10^{(L_{W,S,2,i} + A_i)/10} \right)$$

Where

A_i the A filter weightings for individual single-octave bands

The speech level reduction is determined using the following formula

$$D_{S,A} = L_{W,S,A,1} - L_{W,S,A,2}$$

where $L_{W,S,A,1} = 68.4$ dB is the A-weighted (human ear) human speech sound power within 125 Hz to 8 000 Hz.

3.2 Data declared by the manufacturer

Photographic Documentation of the Test

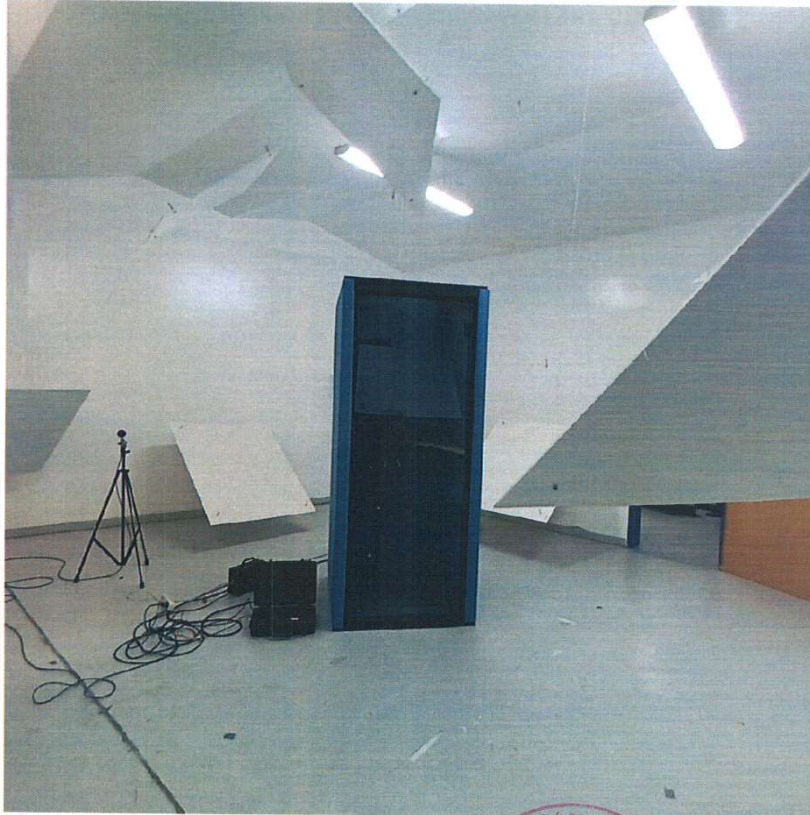
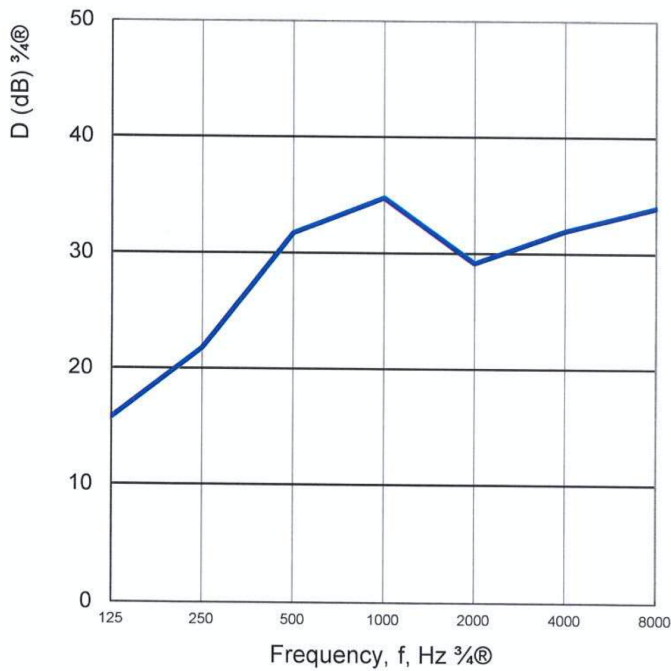


Fig. 1 sample installed in the reverberation chamber



Determination of speech level reduction according to ISO 23351-1

Product: CUBE CALL NF acoustic telephone both see Annex 2
 Operating conditions: common
 Test laboratory: Reverberation chamber
 Name of the operator: Bc. Marie Hartlichová
 Test date: 14.03.2022



Frequency	Speech level reduction
f Hz	D dB
125	15,7
250	21,8
500	31,7
1 000	34,8
2 000	29,2
4 000	32,0
8 000	34,0
D_{S,A}	33,3

Key
 f 1/1-octave frequency band
 D level reduction
 D_{S,A} speech level reduction

Classification of enclosures according to speech level reduction, D_{S,A}

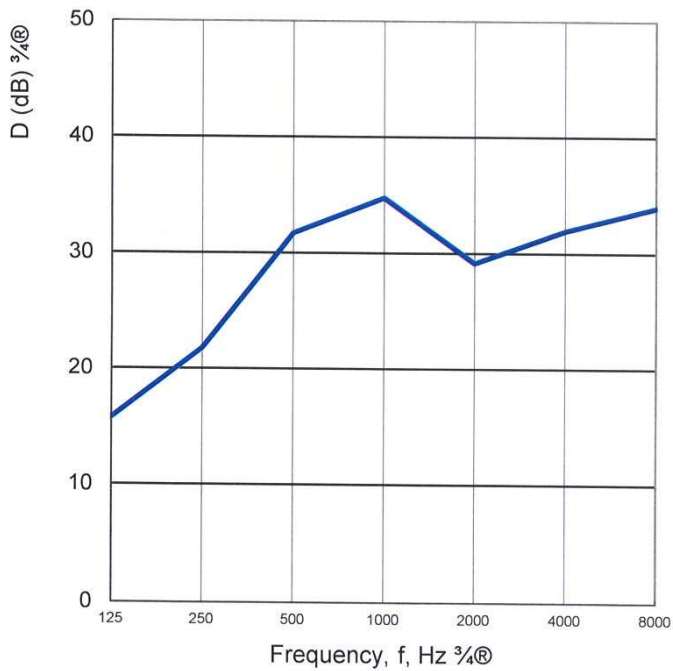
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Annex 1 to Report No. 040-074061



Determination of speech level reduction according to ISO 23351-1

Product: CUBE CALL NF acoustic telephone both see Annex 2
 Operating conditions: common
 Test laboratory: Reverberation chamber
 Name of the operator: Bc. Marie Hartlichová
 Test date: 14.03.2022



Frequency	Speech level reduction
f Hz	D dB
125	15,7
250	21,8
500	31,7
1 000	34,8
2 000	29,2
4 000	32,0
8 000	34,0
DS,A	33,3

Key

f 1/1-octave frequency band
 D level reduction
 DS,A speech level reduction

Classification of enclosures according to speech level reduction, DS,A

A+

Annex 1 to Report No. 040-074061

