

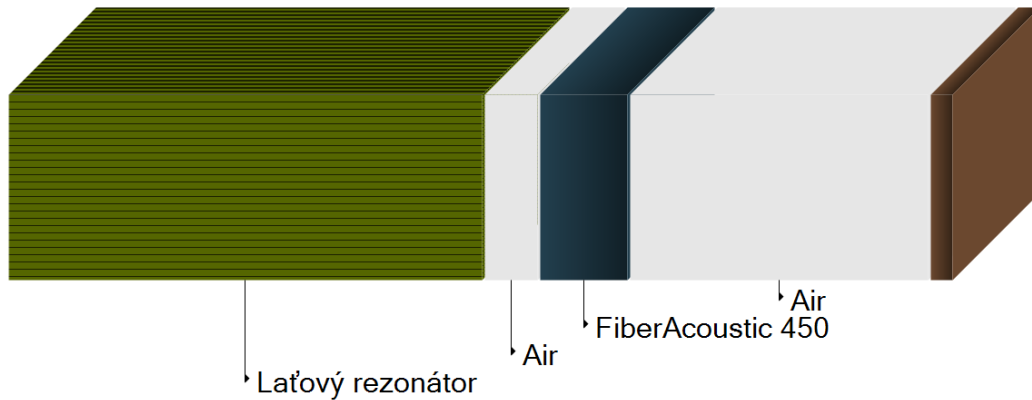
AFMG SoundFlow Report



Creation date: 29.04.2021
AFMG SoundFlow Version: 1.0.12

1. Models

1.1 telocvicna Drahotuse - obklad 1



telocvicna Drahotuse - obklad 1

Dimension	Infinite
Backing	Rigid
Absorber Model	Absorber
Filename	Y:\Data-Burda\! Rozpracované\2021-009273-BJa Tělocvična, Drahotuše, AKU-S\!Vypočty\telocvicna Drahotuse - obklad 1.sfstr

1.1.1 Layers

Overview

Layer No.	Material	Thickness [mm]	Material Type
1	Laťový rezonátor	30,0	Perforated Panel
2	Air	0,10	Air
3	FiberAcoustic 450	2,5	Absorber
4	Air	17,4	Air

Layer 1: Laťový rezonátor

Thickness [mm]	30,0
Material Type	Perforated Panel
Hole Shape	Slit
Hole Dimension [mm]	8,00
Porosity [%]	16,67
Flow Resistivity inside Hole [kPa*s/m²]	1,0

Layer 2: Air

Thickness [mm]	0,10
Material Type	Air

Temperature [°C]	20,0
Relative Humidity [%]	40,0
Pressure [hPa]	1013,3

Layer 3: FiberAcoustic 450

textilie s tl. 2,5 mm, plošná hmotnost 450 g/m²

objemová hmotnost: 180 kg/m³

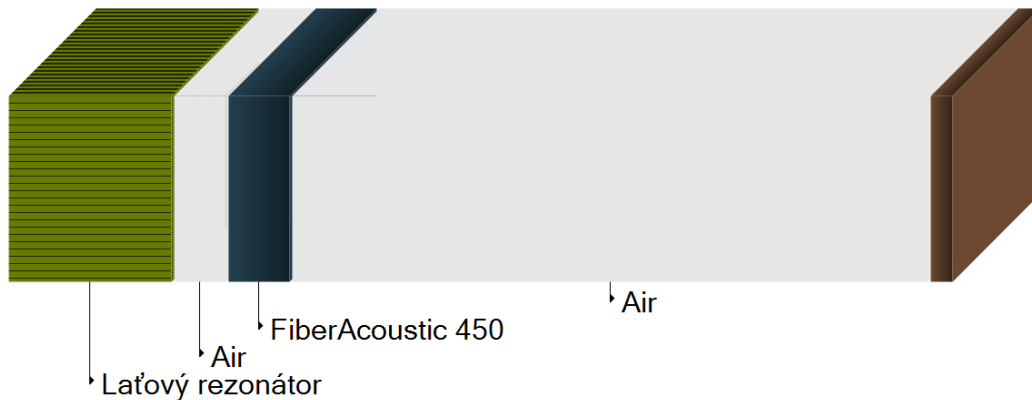
odpor proudění vzduchu: 600 Ns/m³ → 240 kPa*s/m²

Thickness [mm]	2,5
Material Type	Absorber
Flow Resistivity [kPa*s/m ²]	240,0
Density [kg/m ³]	180,0

Layer 4: Air

Thickness [mm]	17,4
Material Type	Air
Temperature [°C]	20,0
Relative Humidity [%]	40,0
Pressure [hPa]	1013,3

1.2 telocvicna Drahotuse - obklad 2



telocvicna Drahotuse - obklad 2

Dimension	Infinite
Backing	Rigid
Absorber Model	Absorber
Filename	Y:\Data-Burda\ Rozpracované\2021-009273-BJa Tělocvična, Drahotuše, AKU-S\!Vypocty\telocvicna Drahotuse - obklad 2.sfstr

1.2.1 Layers

Overview

Layer No.	Material	Thickness [mm]	Material Type
1	Laťový rezonátor	30,0	Perforated Panel
2	Air	0,10	Air
3	FiberAcoustic 450	2,5	Absorber
4	Air	167,4	Air

Layer 1: Laťový rezonátor

Thickness [mm]	30,0
Material Type	Perforated Panel
Hole Shape	Slit
Hole Dimension [mm]	20,00
Porosity [%]	33,33
Flow Resistivity inside Hole [kPa*s/m²]	1,0

Layer 2: Air

Thickness [mm]	0,10
Material Type	Air
Temperature [°C]	20,0
Relative Humidity [%]	40,0

Pressure [hPa]	1013,3
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Layer 3: FiberAcoustic 450

textilie s tl. 2,5 mm, plošná hmotnost 450 g/m²

objemová hmotnost: 180 kg/m³

odpor proudění vzduchu: 600 Ns/m³ → 240 kPa*s/m²

Thickness [mm]	2,5
Material Type	Absorber
Flow Resistivity [kPa*s/m ²]	240,0
Density [kg/m ³]	180,0

Layer 4: Air

Thickness [mm]	167,4
Material Type	Air
Temperature [°C]	20,0
Relative Humidity [%]	40,0
Pressure [hPa]	1013,3

2. Results

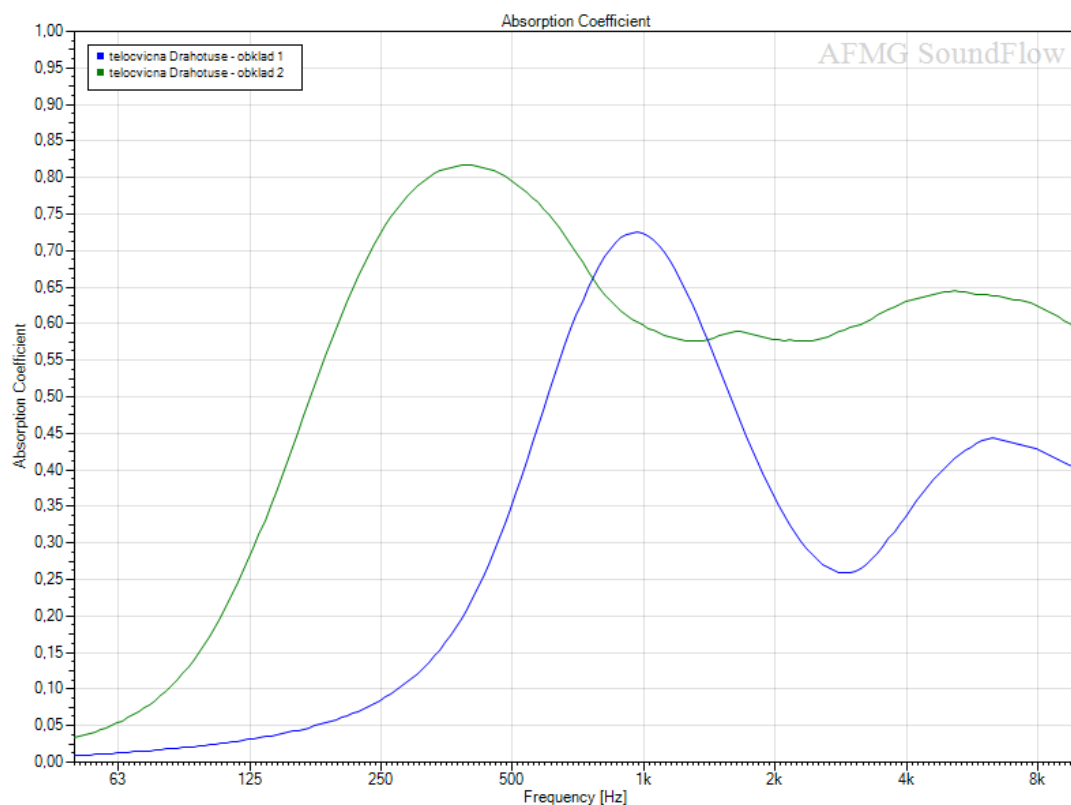
2.1 Broadband Quantities

Diffuse field incidence: 0° - 85°

Structure	ALPHA _w	NRC	R _w	C	C _{tr}	C 50-5000	C _{tr} 50-5000	STC
telocvicna Drahotuse - obklad 1	0,35	0,40	-	-	-	-	-	-
telocvicna Drahotuse - obklad 2	0,60	0,65	-	-	-	-	-	-

2.2 Absorption Coefficient

Direction of incidence	Diffuse field (0° - 85°)
Frequency resolution [Octave]	1/24
Frequency smoothing [Octave]	1/1



Absorption Coefficient

1/3 Octave Band Data		
Frequency [Hz]	telocvicna Drahotuse - obklad 1	telocvicna Drahotuse - obklad 2
50	0,01	0,03
63	0,01	0,05
80	0,02	0,08
100	0,02	0,14
125	0,03	0,26
160	0,04	0,43
200	0,06	0,61
250	0,08	0,74
315	0,12	0,81
400	0,19	0,83
500	0,32	0,81
630	0,53	0,75
800	0,73	0,66

1000	0,77	0,53
1250	0,66	0,60
1600	0,49	0,60
2000	0,34	0,57
2500	0,26	0,57
3150	0,23	0,60
4000	0,31	0,63
5000	0,47	0,66
6300	0,45	0,64
8000	0,41	0,62
10000	0,42	0,62