

Table S1: Measured normal-incidence absorption coefficients of glass-wool (6 cm) and bioboard (6 cm) samples, averaged over third-octave bands.

Frequency (Hz)	Absorption Coefficient	
	Glass-wool	Bioboard
100	0.21	0.13
125	0.24	0.16
160	0.25	0.18
200	0.37	0.23
250	0.62	0.39
315	0.77	0.63
400	0.74	0.85
500	0.70	0.95
630	0.68	0.95
800	0.68	0.89
1000	0.69	0.83
1250	0.73	0.81
1600	0.78	0.86

Table S3: Complex characteristic impedance for glass-wool (6 cm) and bioboard (6 cm) samples, averaged over third-octave bands.

Frequency (Hz)	Characteristic impedance			
	Glass-wool		Bioboard	
	Real	Imag.	Real	Imag.
100	2084.96	-1441.75	1537.87	-482.97
125	1808.76	-1557.01	1466.52	-639.87
160	1247.04	-1315.77	1030.67	-721.43
200	1229.90	-898.99	980.87	-399.15
250	1342.96	-660.04	1042.41	-298.64
315	1426.39	-652.73	1088.24	-293.35
400	1352.91	-679.25	1039.37	-304.92
500	1258.41	-642.69	984.65	-284.32
630	1169.31	-611.37	925.57	-265.30
800	1100.10	-591.30	853.92	-207.29
1000	985.28	-604.74	848.23	-139.96
1250	848.28	-569.56	809.65	-184.15
1600	822.47	-468.90	892.14	18.14

Table S2: Complex characteristic wave numbers for glass-wool (6 cm) and bioboard (6 cm) samples, averaged over third-octave bands.

Frequency (Hz)	Characteristic wave number			
	Glass-wool		Bioboard	
	Real	Imag.	Real	Imag.
100	11.46	-10.16	8.15	-3.93
125	12.25	-12.01	9.53	-5.32
160	11.46	-12.66	8.70	-6.89
200	13.94	-10.84	10.39	-5.17
250	18.88	-10.12	13.91	-5.15
315	25.00	-12.21	17.75	-6.31
400	30.67	-16.01	21.43	-8.08
500	35.81	-20.09	25.33	-9.61
630	41.42	-24.50	30.35	-11.21
800	47.38	-30.12	36.57	-13.33
1000	52.95	-35.27	42.92	-16.26
1250	58.10	-39.41	48.01	-16.32
1600	70.55	-42.83	64.67	-16.20