

THE ACOUSTIC PERFORMANCE OF BOXY BOOTHS

Measurements of sound-reduction values were made with a omnidirectional source of pink noise (with a weighted sound-pressure level of 98 dBA), and relate to model B panels (booths of high-end noise reduction) and model E panels (booths of medium-to-high-end noise reduction).

The tests were made on booths installed in a multi-purpose music centre, and have shown good noise-reduction values in a range of frequencies (16: 20000) Hz.

As seen in the tables below, the measured noise-reduction values are better than the minimum expected for each type of booth. In fact, site measured performance data of the BOXY booths can be influenced positively by external factors such as the presence of walls around the booth, the variability of background noise, and existing furnishings.

BOXY B - High reduction, our most powerful model

MICROPHONE POSITION	EXPECTED REDUCTION	MEASURED REDUCTION
Outside the booth, 1 metre away	39 dBA	47 dBA
Outside the booth, 5 metres away	42 dBA	51 dBA
Inside an adjacent booth	55 dBA	68 dBA

BOXY B REDUCTION VALUES per octave bands								
octave band centre frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
reduction	23.8	36.7	44.6	49.8	51.9	57.9	56.1	79.3

BOXY B to BOXY B REDUCTION VALUES per octave bands								
octave band centre frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
reduction	32	55.6	72	70.6	73.8	77.7	nm	nm



tel. 0744 800427 - fax. 0744 807663
 www.b-beng.it
 email: info@b-beng.it

BOXY E - Excellent performance, low weight

MICROPHONE POSITION	EXPECTED REDUCTION	MEASURED REDUCTION
Outside the booth, 1 metre away	36 dBA	43 dBA
Outside the booth, 5 metres away	39 dBA	46 dBA
Inside an adjacent booth	53 dBA	60 dBA

BOXY E REDUCTION VALUES per octave bands								
octave band centre frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
reduction	23.6	28.7	32.9	42.6	43.8	42.5	47.0	49.0

BOXY E to BOXY E REDUCTION VALUES per for octave bands								
octave band centre frequencies (Hz)	63	125	250	500	1000	2000	4000	8000
reduction	39.5	55.4	63.2	58.8	58.4	63.3	60.6	60.7

Internal acoustics

For both product models, BOXY booths are equipped with a variable acoustic correction system built from panels with double-sided resonating/porous absorbers and bass traps. The reverberation-time statistics below refer to a rehearsal room: the uniformity of the reverberation time inside the room is apparent.

