

Acoustics Test Result Report

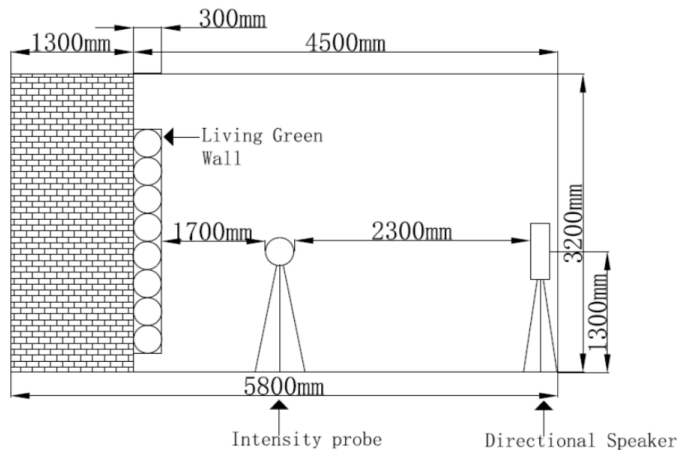
Fytotextile Living wall system by Terapia Urbana and Scotscape Smartscape Limited

1. Acoustics Test Results

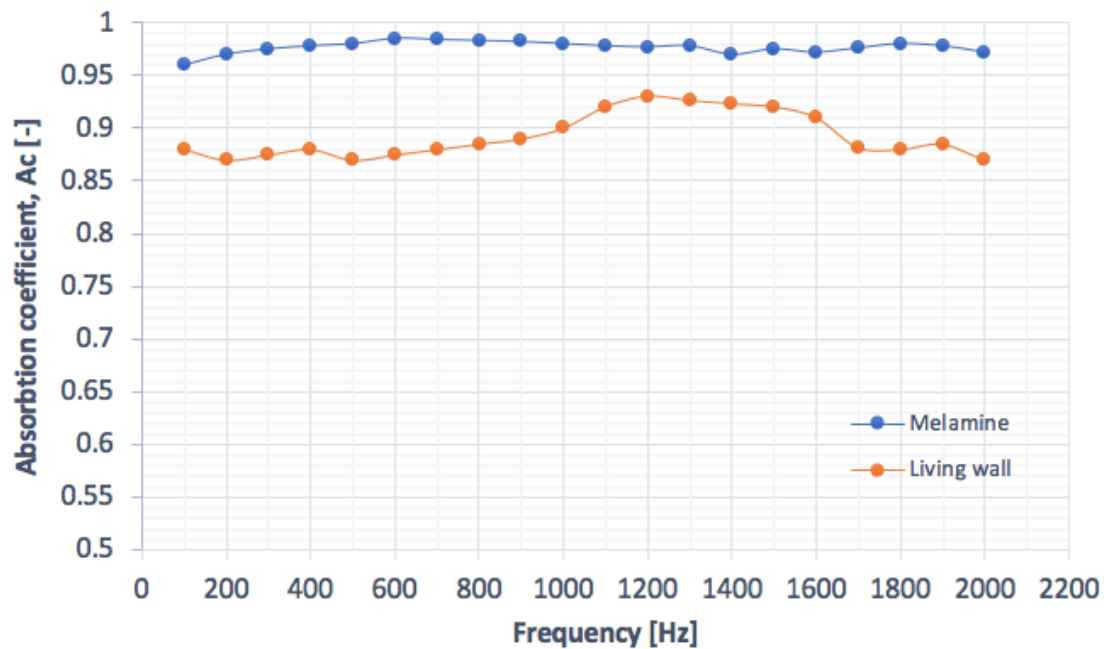
Specimen Living wall was of 2500 x 2500 mm in size was based at University of Greenwich, Medway Campus Laboratory, see image below. The selection of plants as seen from the image was random, however represented a diverse plant morphology, where such parameters have been considered: length, width, thickness and coverage area of leaves, flowers and stems. The wall has been controlled to have soil moisture content of around 10%. A parametric transducer method to measure sound absorption of the specimen wall was used as per [1].



The transducer (intensity probe) was set at a 1.3m height from the ground and 1.7m away from the Living wall centre. The directional speaker was emitting the sinusoidal chirp sound, 10Hz – 20kHz, and was set 2.3m away from the transducer (intensity probe), as seen below. The tests have been executed at a 90-degree angle towards the Living wall.



The results of the acoustic sound test for the Melamine (reference acoustic absorbent material) and the Living wall are seen below. Absorption coefficient of 1 indicates 100% of sound absorption in reference frequency.



[1] Romanova A, Horoshenkov KV, Hurrell A (2019) 'An application of a parametric transducer to measure acoustic absorption of a living green wall'. *Journal of Applied Acoustics, Elsevier*, 145, pp. 89-97.

End of the Report

Kind regards

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