

## SOUND ABSORPTION COEFFICIENTS

### ORCAL PLANK SUSPENDED CEILING

#### MEASUREMENTS

Sound Absorption Coefficient ( $\alpha_s$ ) measurements were conducted at the AIRO Acoustics Laboratory in accordance with BS EN 20354:1993, using a purpose built reverberation chamber. The test was performed on 28 August 1996. AIRO is accredited by UKAS as a NAMAS TESTING Laboratory No. 0483.

#### DESCRIPTION

The test sample consisted of a suspended ceiling which covered an area of 3000 mm x 3600 mm and was supported over a 300 mm deep void by a 24 mm thick chipboard box framework. The suspended ceiling framework was a 24 mm metal grid which supported 30 no. Armstrong Square Row Standard-Perforated Orcal Metal Planks, 13% open area. The planks included 8 mm plain borders and Freudeberg non-woven black tissue thermally adhered on the reverse of the planks. For test purposes the tiles were placed face-up in the grid.

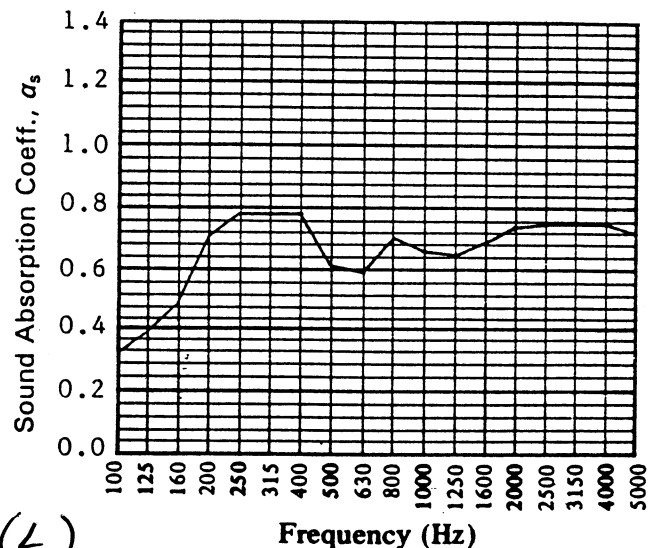
Test specimen area : 10.8 m<sup>2</sup>

Estimated mass : 5.5 kg/m<sup>2</sup>

Tested for and supplied by : Armstrong Metal Ceilings Limited

#### RESULTS

Frequency Hz	$\alpha_s$	Frequency Hz	$\alpha_s$
100	0.31	800	0.70
125	0.39	1000	0.66
160	0.49	1250	0.63
200	0.71	1600	0.69
250	0.78	2000	0.74
315	0.78	2500	0.75
400	0.78	3150	0.75
500	0.61	4000	0.75
630	0.59	5000	0.72



*NRC 0.7       $\alpha_w = 0.7(L)$*

This Test Certificate summarises Report No. L/2463 dated 9 September 1996

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