

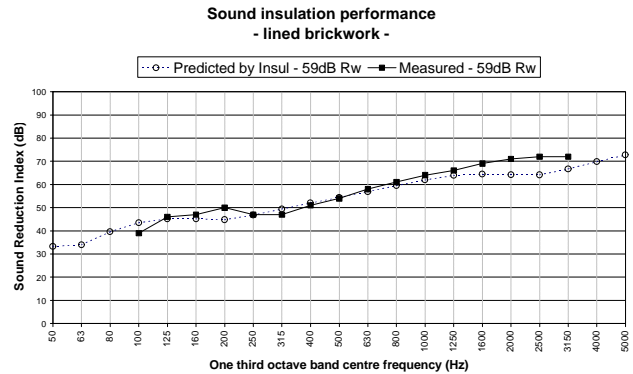


INSUL

Examples of Predicted vs Measured Sound Insulation Performance

Example 1 Lined brickwork

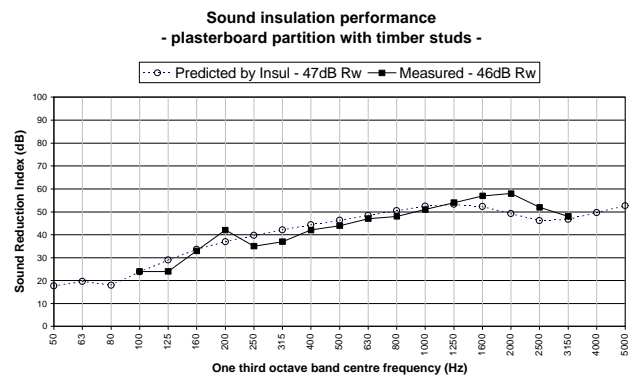
Single leaf brick with lining comprising 2 layers of 12.5mm Fireline board on 75mm timber studs. Quilt in cavity



	One Third Octave Band Centre Frequency (Hz)																				
	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
Predicted by Insul - 59dB R _w	33	34	40	44	45	45	47	47	49	52	54	57	60	62	64	64	64	64	67	70	73
Measured - 59dB R _w	33	34	39	44	45	47	50	47	47	51	54	58	61	64	66	69	71	72	72	73	73

Example 2 Timber stud partition

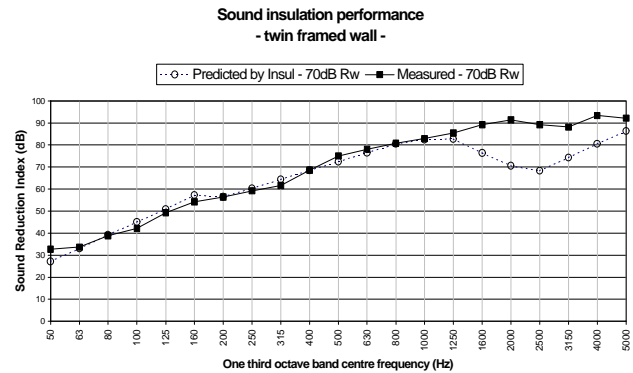
2 layers of 13mm plasterboard each side of 75mm timber studs. Quilt in cavity



	One Third Octave Band Centre Frequency (Hz)																				
	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
Predicted by Insul - 47dB R _w	18	20	18	24	29	34	37	40	42	44	46	48	50	52	53	52	49	46	47	50	53
Measured - 46dB R _w	18	20	18	24	24	33	42	35	37	42	44	47	48	51	54	57	58	52	48	50	53

Example 3 Twin framed wall

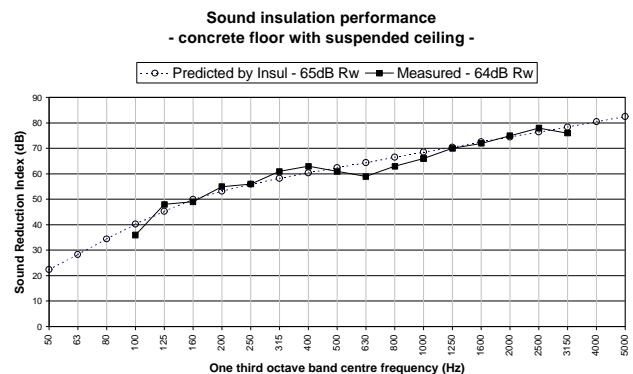
2 layers of 12.5mm plasterboard and 1 layer of 19mm Gyproc plank on independent 92mm studs. Cavity depth of 300mm. Quilt in cavity



	One Third Octave Band Centre Frequency (Hz)																				
	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
Predicted by Insul - 70dB R _w	27	33	39	45	51	57	57	60	64	69	72	76	81	82	83	76	71	68	74	81	86
Measured - 70dB R _w	33	34	39	42	49	54	56	59	62	69	75	78	81	83	85	89	91	89	88	93	92

Example 4 Concrete floor with suspended ceiling

150mm Trent concrete floor with Gyproc M/F suspended ceiling system comprising 2 layers of 12.5mm plasterboard. Quilt in void



	One Third Octave Band Centre Frequency (Hz)																				
	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
Predicted by Insul - 65dB R _w	22	28	34	40	45	50	53	56	58	60	62	64	67	69	70	73	75	76	78	81	83
Measured - 64dB R _w	28	34	40	45	49	55	56	58	61	63	61	59	63	66	70	72	75	78	76	81	83