

# Appendix C

## BRE – Absorption Coefficients

### Absorption Coefficients

Description	Frequency (Hz.)					
	125	250	500	1000	2000	4000
Rough Concrete	0.02	0.03	0.03	0.03	0.04	0.07
Smooth unpainted concrete	0.01	0.01	0.02	0.02	0.02	0.05
Smooth concrete, painted or glazed	0.01	0.01	0.01	0.02	0.02	0.02
Porous concrete blocks (no surface finish)	0.05	0.05	0.05	0.08	0.14	0.20
Smooth brickwork with flush pointing, unpainted	0.02	0.03	0.03	0.04	0.05	0.07
Smooth brickwork with flush pointing, painted	0.01	0.01	0.02	0.02	0.02	0.02
Brickwork, 10mm flush pointing	0.08	0.09	0.12	0.16	0.22	0.24
Lime cement plaster on masonry wall	0.02	0.02	0.03	0.04	0.05	0.05
Glazed plaster on masonry wall	0.01	0.01	0.01	0.02	0.02	0.02
Painted plaster on masonry wall	0.02	0.02	0.02	0.02	0.02	0.02
Plaster on masonry wall with wall paper on backing paper	0.02	0.03	0.04	0.05	0.07	0.08
Ceramic tiles with smooth surface	0.01	0.01	0.01	0.02	0.02	0.02
Smooth marble or terrazzo slabs	0.01	0.01	0.01	0.01	0.02	0.02
55mm perforated bricks, 11% perforated over 50mm mineral wool	0.48	0.77	0.38	0.27	0.65	0.35
56mm perforated bricks, 11% perforated, no cavity	0.03	0.15	0.30	0.80	0.45	0.50
Plaster on lath, deep air space	0.20	0.15	0.10	0.05	0.05	0.05
12.5mm plasterboard on frame, 100mm cavity, no mineral wool	0.08	0.11	0.05	0.03	0.02	0.03
12.5mm plasterboard on frame, 100mm airspace with mineral wool	0.30	0.12	0.08	0.06	0.06	0.05