

BRE Feb. 2008

Note: this worksheet (except for input cells) is protected by a password, but cells may still be copied and pasted.

**Airtight Sealant Process - CERT energy savings**

(includes 15% comfort factor)

**For other total floor areas:**

Enter total floor area into blue cell,

calculated saving is in yellow cell

Standard areas m <sup>2</sup>	
1 bedroom	42
2 bedroom	61
3 bedroom	89
4 bedroom	113

Wtg		Annual CO <sub>2</sub> savings (kgCO <sub>2</sub> /yr)						
		bedrooms	Gas	LPG	Electric	Oil	Coal	Wtd all fuels
45%	Flat(3ext.walls)	1	123.6	139.2	271.4	157.6	323.8	137.4
	Flat(3ext.walls)	2	166.6	187.6	365.9	212.4	436.5	185.2
	Flat(3ext.walls)	3	225.4	253.8	495.0	287.3	590.5	250.5
	area m <sup>2</sup> >	113	272.8	307.2	599.1	347.8	714.8	303.2
55%	Flat(2ext.walls)	1	125.5	141.3	253.8	155.0	314.1	137.6
	Flat(2ext.walls)	2	169.2	190.5	342.1	208.9	423.4	185.5
	Flat(2ext.walls)	3	228.8	257.7	462.8	282.6	572.8	250.9
100%	area m <sup>2</sup> >	113	277.0	312.0	560.2	342.1	693.4	303.7

**Weighted average for 1, 2 & 3 bedroom flats, and calculator based on m<sup>2</sup> floor area**

Annual CO<sub>2</sub> savings (kgCO<sub>2</sub>/yr)

		bedrooms	Gas	LPG	Electric	Oil	Coal	Wtd all fuels
Flat		1	124.6	140.4	261.7	156.1	318.5	137.5
Flat		2	168.0	189.2	352.8	210.5	429.3	185.3
Flat		3	227.3	256.0	477.3	284.7	580.8	250.7
area m <sup>2</sup> >		113	275.1	309.8	577.7	344.7	703.0	303.5

Derived using the results reported in "Airtight sealant process' remedial sealing - further BREDEM calculations"

BRE report for Adrian Brown of Airtight Solutions Ltd. 18 July 2005.

Other assumptions identical to CERT standard calculations

TABLE 1 - CERT Airtight Sealant Process remedial sealing (Airoseal)

Annual CO<sub>2</sub> savings (kgCO<sub>2</sub>/yr)

		bedrooms	Gas	LPG	Electric	Oil	Coal
Flat(3ext.walls)		2	166.6	187.6	365.9	212.4	436.5
Flat(2ext.walls)		2	169.2	190.5	342.1	208.9	423.4

TABLE 2 - CERT Standard draughtproofing

Annual CO<sub>2</sub> savings (kgCO<sub>2</sub>/yr)

		bedrooms	Gas	LPG	Electric	Oil	Coal
Flat(3ext.walls)		2	71.8	80.8	158.1	91.8	189.1
Flat(2ext.walls)		2	71.3	80.3	148.4	88.8	180.3

**Cert Airoseal CO<sub>2</sub> savings are higher than CERT Standard draughtproofing CO<sub>2</sub> savings by a factor of between 2.3 and 2.4.**