

Wind Pressure Coefficients Database

There are 29 Wind Pressure Coefficient data sets in this database. The first 27 data sets are from the Air Infiltration and Ventilation Centre Handbook called "Air Infiltration Calculation Techniques - An Applications Guide". The data is only applicable for low-rise buildings (up to 3 storeys), and they state quite clearly that the data is approximate and they are not responsible for any inaccuracies resulting from the use of the data.

However, in most applications no wind pressure coefficient information is available. Consequently some assumptions must be made. We recommend that the user applies these coefficients with great care and replaces them with any relevant data for the particular application.

Each data set is described in terms of:

- a) facade description ie Wall or Roof (which has values for different roof pitch angles).
- b) the ratio of length to width of building.
- c) site shielding where
 - Exposed: open countryside, no obstructions.
 - Semi-Exposed: rural surroundings, some obstructions.
 - Sheltered: urban, surrounded on all sides by obstructions of similar size.

Database Reference	Facade Description	Length to width Ratio	Exposure Description
1	Wall	1:1	Exposed
2	Roof, pitch > 10 deg	1:1	Exposed
3	Roof, pitch 10-30 deg	1:1	Exposed
4	Roof, pitch > 30 deg	1:1	Exposed
5	Wall	1:1	Semi-Exposed
6	Roof, pitch < 10 deg	1:1	Semi-Exposed
7	Roof, pitch 10-30 deg	1:1	Semi-Exposed
8	Roof, pitch > 30 deg	1:1	Semi-Exposed
9	Wall	1:1	Sheltered
10	Roof, pitch < 10 deg	1:1	Sheltered
11	Roof, pitch 10-30 deg	1:1	Sheltered
12	Roof, pitch > 30 deg	1:1	Sheltered
13	Long Wall	2:1	Exposed
14	Short Wall	1:2	Exposed
15	Roof, pitch < 10 deg	2:1	Exposed
16	Roof, pitch 10-30 deg	2:1	Exposed
17	Roof, pitch > 30 deg	2:1	Exposed
18	Long Wall	2:1	Semi-Exposed
19	Short Wall	1:2	Semi-Exposed
20	Roof, pitch < 10 deg	2:1	Semi-Exposed
21	Roof, pitch 10-30 deg	2:1	Semi-Exposed
22	Roof, pitch > 30 deg	2:1	Semi-Exposed
23	Long Wall	2:1	Sheltered
24	Short Wall	1:2	Sheltered
25	Roof, pitch < 10 deg	2:1	Sheltered
26	Roof, pitch 10-30 deg	2:1	Sheltered
27	Roof, pitch > 30 deg	2:1	Sheltered
28	Wall	1:1	Exposed
29	Roof, no pitch	1:1	Exposed