

NATIONAL ANNEX

UK National Annex to Eurocode 1 – Actions on structures

Part 1-4: General actions – Wind actions

ICS 91.010.30

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© BSI 2011

ISBN 978 0 580 73818 0

The following BSI references relate to the work on this standard:

Committee reference B/525/1

Draft for comment 06/30152554 DC

10/30232884 DC

Publication history

First published September 2008

Amendments issued since publication

Amd. no.	Date	Text affected
A1	January 2011	See Introduction

Contents

Introduction 1

NA.1 Scope 1

NA.2 Nationally Determined Parameters 2

NA.3 Decision on the status of informative annexes 37

NA.4 Reference to non-contradictory complementary information 37

Annex A (informative) Flowcharts for obtaining q_p 38

~~A1~~ *Advisory note deleted* ~~A1~~ 40

Bibliography 41

List of figures

Figure NA.1 – Value of fundamental basic wind velocity $v_{b,map}$ (m/s) before the altitude correction is applied 5

Figure NA.2 – Definition of significant orography (definition of symbols given in **A.3(3)**) 6

Figure NA.3 – Values of $c_t(z)$ 8

Figure NA.4 – Values of correction factor $c_{r,T}$ for sites in Town terrain 9

Figure NA.5 – Values of $I_v(z)_{flat}$ 11

Figure NA.6 – Values of turbulence correction factor $k_{l,T}$ for sites in Town terrain 12

Figure NA.7 – Values of $c_e(z)$ 13

Figure NA.8 – Values of exposure correction factor $c_{e,T}$ for sites in Town terrain 14

Figure NA.9 – Dynamic factor c_d for various values of logarithmic decrement of structural damping, δ_s 16

Figure NA.10 – Pressure distribution used to take torsional effects into account. The zones and c_{pe} values are given in BS EN 1991-1-4:2005 Table 7.1 and BS EN 1991-1-4:2005 Figure 7.5 17

Figure NA.11 – External pressure coefficients $c_{pe,10}$ for zone A of vaulted roofs for $\theta = 0^\circ$ 25

Figure NA.12 – External pressure coefficients $c_{pe,10}$ for zone B of vaulted roofs 26

Figure A.NA.1 – Flowchart for obtaining q_p for sites in country 38

Figure A.NA.2 – Flowchart for obtaining q_p for sites in town 39

List of tables

Table NA.1 – Directional factor c_{dir} 4

Table NA.2 – Season factor c_{season} 6

Table NA.3 – Size factor c_s for zones A, B and C indicated in Figures NA.7 and Figure NA.8 15

Table NA.4 – Net pressure coefficients for vertical walls of rectangular buildings 18

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 41 and a back cover.

Table NA.5 – External pressure coefficients for flat roofs ($C_{pe,10}$ and $C_{pe,1}$) 20

Table NA.6a) – External pressure coefficients for monopitch roofs ($C_{pe,10}$ and $C_{pe,1}$) 21

Table NA.6b) – External pressure coefficients for monopitch roofs ($C_{pe,10}$ and $C_{pe,1}$) 21

Table NA.7a) – External pressure coefficients for duopitch roofs ($C_{pe,10}$ and $C_{pe,1}$) 22

Table NA.7b) – External pressure coefficients for duopitch roofs ($C_{pe,10}$ and $C_{pe,1}$) 23

Table NA.8 – External pressure coefficients for hipped roofs ($C_{pe,10}$ and $C_{pe,1}$) 24

Table NA.9 – Typical permeability of construction in the UK 26

Table NA.10 – Values of ψ for cylinders, polygonal sections, rectangular sections, sharp edged structural sections and lattice structures 29

Table NA.11 – Values of wind load factor C 32

Table NA.12 – Force coefficient C_{fp} for piers 35