

Technical Note 2

INTRODUCTION TO WIND LOADING ON CLADDING



This Technical Note is one of five on wind loading for the window and cladding industry. The series comprises:

- TN 2 Introduction to wind loading on cladding*
- TN 3 Wind loading on wall cladding and windows of low-rise buildings*
- TN 4 Issues relating to wind loading on tall buildings*
- TN 5 Wind tunnel testing*
- TN 6 Pressure equalisation*

Introduction

This Technical Note gives guidance on wind loading and outlines the differences between CP3: Chapter V: Part 2 and BS 6399: Part 2. It includes design examples and full references to UK national Standards that relate to wind loading.

The full series of Technical Notes on this subject will give a basic understanding of the action of wind on buildings, ranging from domestic housing through to large office blocks, and the principles of wind action on structures with exterior cladding.

Wind Loading Codes

Introduction of new codes

Wind loading is currently covered by UK Standards but a EuroNorm for wind loading is currently being drafted to create a unified approach to wind load design. The codes and standards currently available are:

CP3: Chapter V: Part 2

Issued in 1972 and planned to be withdrawn.

BS 6399: Part 2

Issued in August 1995 (revised in 1997) and will run in parallel with CP3: Chapter V: Part 2 until the latter is withdrawn.

EN 1991-2-4

Issued as a draft for development in 1997 to

allow further experience of its provisions to be gained before deciding whether it should be adopted as a European Standard

UK National Codes

The current codes which relate to wind loading and the action of wind on structures, cladding and glazing systems are listed below:

CP3: Chapter V: Part 2: 1972 Code of basic data for the design of buildings. Chapter V: Loading. Part 2: Wind Loads.

BS 5268: Part 3: 1985 Structural use of timber. Part 3: Code of practice for trussed rafter roofs.

BS 5368: Part 3: 1978 (EN 77, ISO 6612) Methods of Testing Windows. Part 3: Wind resistance tests.

BS 5516: 1991 Design and Installation of sloping and vertical patent glazing.

BS 6375: Part 1: 1989 Performance of windows. Part 1: Classification for weathertightness (including guidance on selection and specification).

BS 6262: 1982 Glazing for buildings.

BS 6399: Part 2: 1997 Loading for buildings. Part 2: Wind loads.

BS 8103 Structural design of low-rise buildings.

The Building Regulations 1991 England and Wales Structure, Approved Document A.