Eurocode 1: Actions on structures
Part 1-4: General actions
Wind actions
Estonian National Annex

Eurokoodeks 1: Ehituskonstruktsioonide koormused
Osa 1-4: Üldkoormused
Tuulekoormus
Eesti standardi rahvuslik lisa

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

FOREWORD

This document:

— is the Estonian National Annex to the European Standard EN 1991-1-4:2005 “Eurocode 1: Actions on structures – Part 1-4: General actions – Wind actions”. It includes Estonian Nationally Determined Parameters (NDP) and procedures and it must be used together with EN 1991-1-4:2005 for structural design of buildings and civil engineering works built in Estonia;

— was ratified with an order of Estonian Centre for Standardisation dated 29.10.2007 nr 161;

— is endorsed with the notification published in the November 2007 issue of the official bulletin of the Estonian centre for Standardisation.

The proposition to prepare a national annex was made by EVS/TK 13, it was coordinated by the Estonian Centre for Standardisation and funded by the Ministry of Economic Affairs and Communications.

The National annex of EVS-EN 1991-1-4 was prepared by docent Ivar Talvik. This document has been approved by Technical Committee EVS/TK 13 „Ehituskonstruktsioonide projekteerimine“.

ICS 91.010.30 Technical aspects
Price group R

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Annex NA
(informative)
National requirements for Estonia

This national annex gives alternative procedures, values and recommendations for classes with Notes indicating where National choice may be made. These are known as Nationally Determined Parameters and are to be used for the design of buildings and civil engineering works to be constructed.

National choice is allowed for EN 1991-1-4 through clauses:

1.1 (11) Note 1
1.5 (2)

4.1 (1)
4.2 (1)P Note 2
4.2 (2)P Notes 1, 2, 3 and 5
4.3.1 (1) Notes 1 and 2
4.3.2 (1)
4.3.2 (2)
4.3.3 (1)
4.3.4 (1)
4.3.5 (1)
4.4 (1) Note 2
4.5 (1) Notes 1 and 2

5.3 (5)

6.1 (1)
6.3.1 (1) Note 3
6.3.2 (1)

7.1.2 (2)
7.1.3 (1)
7.2.1 (1) Note 2
7.2.2 (1)
7.2.2 (2) Note 1
7.2.8 (1)
7.2.9 (2)
7.2.10 (3) Notes 1 and 2
7.4.1 (1)
7.4.3 (2)
7.6 (1) Note 1
7.7 (1) Note 1
7.8 (1)
7.10 (1) Note 1
7.11 (1) Note 2
7.13 (1)
7.13 (2)

8.1 (1) Notes 1 and 2
8.1 (4)
8.1 (5)
8.2 (1) Note 1
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8.3.1 (2)

8.3.2 (1)
8.3.3 (1) Note 1
8.3.4 (1)
8.4.2 (1) Notes 1 and 2

A.2 (1)

E.1.3.3 (1)
E.1.5.1 (1) Notes 1 and 2
E.1.5.1 (3)
E.1.5.2.6 (1) Note 1
E.1.5.3 (2) Note 1
E.1.5.3 (4)
E.1.5.3 (6)
E.3 (2)

The clauses which allow national choice are included in this national annex. All the terms, definitions, symbols and normative references used in EVS-EN 1991-1-4 apply. The clauses correspond to the clauses in EN 1991-1-4, with the letters "NA" preceding the clause number.

NA.1.1 Scope

(11) This part does not give guidance on the following aspects:

— wind actions on lattice towers with non-parallel chords

— wind actions on guyed masts and guyed chimneys

— torsional vibrations, e.g. tall buildings with a central core

— bridge deck vibrations from transverse wind turbulence

— cable supported bridges

— vibrations where more than the fundamental mode needs to be considered

NOTE 1 The National Annex may provide guidance on these aspects as non contradictory complementary information.

— *No additional method is given in the Estonian national annex.*

NOTE 2 For wind actions on guyed masts, guyed chimneys and lattice towers with non-parallel chords, see EN 1993-3-1, Annex A.

NOTE 3 For wind actions on lighting columns, see EN 40.

NA.1.5 Design assisted by testing and measurements

(2) Load and response information and terrain parameters may be obtained from appropriate full scale data.

NOTE The National Annex may give guidance on design assisted by testing and measurements.

— *No additional method is given in the Estonian national annex.*

NA.4.1 Basis for calculation

(1) The wind velocity and the velocity pressure are composed of a mean and a fluctuating component. The mean wind velocity v_m should be determined from the basic wind velocity v_b which depends on the wind climate as described in 4.2, and the height variation of the wind determined from the terrain roughness and orography as described in 4.3. The peak velocity pressure is determined in 4.5.