Facade scaffolds made of prefabricated components - Part 2: Particular methods of structural design

Facade scaffolds made of prefabricated components - Part 2: Particular methods of structural design



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12810-2:2004 sisaldab Euroopa standardi EN 12810-2:2003 ingliskeelset teksti.

Käesolev dokument on jõustatud 27.04.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12810-2:2004 consists of the English text of the European standard EN 12810-2:2003.

This document is endorsed on 27.04.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European standard applies to façade scaffold systems conforming with EN 12810-1. It defines rules for the structural analysis and design of these systems by calculation and testing, in addition to those defined in EN 12811-1,prEN 12811-2, EN 12811-3 and EN 12810-1.

Scope:

This European standard applies to façade scaffold systems conforming with EN 12810-1. It defines rules for the structural analysis and design of these systems by calculation and testing, in addition to those defined in EN 12811-1,prEN 12811-2, EN 12811-3 and EN 12810-1.

ICS 91.220

Võtmesõnad:

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 12810-2

December 2003

ICS 91,220

English version

Façade scaffolds made of prefabricated components - Part 2: Particular methods of structural design

Echafaudages de façade à composants préfabriqués -Partie 2: Méthodes de conception particulière et d'évaluation Fassadengerüste aus vorgefertigten Bauteilen - Teil 2: Besondere Bemessungsverfahren und Nachweise

This European Standard was approved by CEN on 4 September 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	O.	page
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Structural design	4
4.1	General	4
4.2	Models for structural analysis	6
4.3	Tests on configurations and connection devices	10
4.3.1	Tests for stiffness and resistance	10
4.3.2	Vibration test	10
4.4	Tests on a representative section of a system configuration	11
4.4.1	General	11
4.4.2	Type 1 test for verification of significant load displacement behaviour	11
4.4.3	Type 2 test for the verification of the elastic buckling load factor $lpha$ _{cr}	13
4.4.3.1	Test assembly	13
4.4.3.2	Test procedure	13
4.4.3.3	. Validation of $lpha$ $_{ m cr}$	14
Annex	A (normative) Typical tests for connection devices and configurations	15
Annex	B (normative) Drop tests for platforms and their supports	21
	C (normative) Repeated loading tests for welded aluminium treads	
Bibliog	graphy	24

Foreword

This document (EN 12810-2:2003) has been prepared by Technical Committee CEN/TC 53 "Temporary works equipment", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

Annexes A, B and C are normative.

This European Standard will supersede the European Harmonisation document HD 1000:1988 "Service and working scaffolds made of prefabricated elements; Materials, dimensions, design loads and safety requirements".

This European Standard is one of a series of standards as listed below.

EN 12810-1, Façade scaffolds made of prefabricated elements — Part 1: Product specifications.

EN 12810-2, Façade scaffolds made of prefabricated elements — Part 2: Particular methods of structural design.

EN 12811-1, Temporary works equipment — Part 1: Scaffolds — Performance requirements and general design.

prEN 12811-2, Temporary works equipment — Part 2: Information on materials.

EN 12811-3:2002, Temporary works equipment — Part 3: Load Testing.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European standard applies to façade scaffold systems conforming with EN 12810-1. It defines rules for the structural analysis and design of these systems by calculation and testing, in addition to those defined in EN 12811-1,prEN 12811-2, EN 12811-3 and EN 12810-1.

Basic requirements are given in ENV 1993-1-1 and ENV 1999-1-1.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12810-1:2003, Façade scaffolds made of prefabricated components — Part 1: Product specifications.

EN 12811-1, Temporary works equipment — Part 1: Scaffolds — Performance requirements and general design.

prEN 12811-2, Temporary works equipment — Part 2: Information on materials.

EN 12811-3:2002, Temporary works equipment — Part 3: Load Testing.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12810-1 and EN 12811-1 apply.

4 Structural design

4.1 General

Structural design of the system configurations of the standard set of each prefabricated scaffold system shall be carried out in accordance with the requirements of EN 12811-1, prEN 12811-2 and EN 12811-3 and EN 12810-1 and this European Standard.

2 T.

The structural design shall follow one of the paths in Table 1, see also Figure 1.