



SLOVENSKI STANDARD
SIST EN 1168:2005/kprA2:2008
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Montažni betonski izdelki - Votle plošče

Precast concrete products - Hollow core slabs

Betonfertigteile - Hohlplatten

Produits préfabriqués en béton - Dalles alvéolées

Ta slovenski standard je istoveten z: EN 1168:2005/prA2

ICS:

91.100.30	Beton in betonski izdelki	Concrete and concrete products
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English Version

Precast concrete products - Hollow core slabs

Produits préfabriqués en béton - Dalles alvéolées

Betonfertigteile - Hohlplatten

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 229.

This draft amendment A2, if approved, will modify the European Standard EN 1168:2005. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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

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Foreword

This document (EN 1168:2005/prA2:2008) has been prepared by Technical Committee CEN/TC 229 “Precast concrete products”, the secretariat of which is held by AFNOR and was examined by and agreed with a joint working party appointed by the Liaison Group CEN/TC 229 – CEN/TC 250, particularly for its compatibility with structural Eurocodes.

This document is currently submitted to the Unique Acceptance Procedure.

EN 1168:2005/prA2:2008 (E)**1 Modification to Contents**

List titles until level 3.

2 Modification to the Foreword

At the end of the first paragraph, add: "and was examined by and agreed with a joint working party appointed by the Liaison Group CEN/TC 229 – CEN/TC 250, particularly for its compatibility with structural Eurocodes".

3 Modification to the Scope

In the 8th paragraph, replace "EN 1991-2" with "EN 1991-1-1".

4 Modification to the Introduction

Replace the second part of the sentence (after the semi colon) of the third paragraph with:

"however, concrete properties adopted as input for calculation of shear resistance depend on the proper functioning of the production machine; therefore a full scale test method to confirm both the shear resistance obtained by calculation and the proper functioning of the production machine, is given in Annex J (normative).".

5 Modification to 4.2, Production requirements

Replace the content of the hanging paragraph with:

"4.2 of EN 13369:2004 shall apply. In particular the compressive strength of concrete according to 4.2.2.2 of EN 13369:2004 shall be considered.

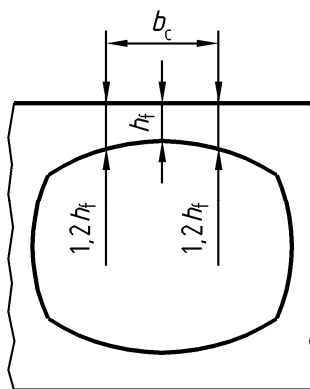
Proper placing and compacting of concrete by the production machine shall be verified by initial type testing according to 6.2.2.

Complementary to 4.2.3 of EN 13369:2004 4.2.1 shall apply for structural reinforcement.".

6 Modification to 4.3.1.2.1, Thickness of webs and flanges

Replace the existing Figure 2 with the following new figure:

"



".

7 Modification to 4.3.3.1, General

Replace the last sentence with:

"The test method for confirmation of the shear resistance is given in Annex J."

8 Modification to 4.3.3.2.1, Resistance to spalling for prestressed hollow core slabs

In a), replace " $\alpha_e = \frac{(e_o - k)}{h}$ " with " $\alpha_e = \frac{(e_o - k)}{h} \geq 0$ ".

9 Addition of 4.3.3.3, Verification by calculation aided by physical testing

Add a new subclause:

"4.3.3.3 Verification by calculation aided by physical testing

The shear resistance obtained by calculation shall be confirmed by physical full scale testing according to Annex J."

EN 1168:2005/prA2:2008 (E)**10 Modification to Clause 6, Evaluation of conformity**

Replace the content of the whole clause with:

"6.1 General

6.1 of EN 13369:2004 shall apply.

6.2 Type testing**6.2.1 General**

Consequently to 4.2 and 4.3.3.3, hollow core slabs shall be submitted to full scale type testing according to Annex J. Further full scale testing in the framework of the factory production control (see 6.3) is not required when the tests results are in accordance with the calculated values after J.5.

For the purpose of full scale type testing hollow core slabs made on the same type of production machines and with the same concrete strength with similar shape of cores may be grouped into a product family if the nominal depth h stays into a range of 50 mm and the nominal relative total web thickness $\sum b_{w-rel}$ of the cross sections stays into a range of 50 mm.

NOTE 1 The boarder of the range of 50 mm can be chosen by the producer, e.g. the depth of a product family can enclose 150 mm to 200 mm, but 175 mm to 225 mm is also possible. The same principle applies to the relative total web thickness.

NOTE 2 The relative total web thickness $\sum b_{w-rel}$ is equal to the total web thickness $\sum b_w$ (in mm) (see 4.3.1.1.1) divided by the slab width (in m).

If a production facility consists of two or more production machines of the same type, type testing may be limited to one machine as far as at least the same compaction level of concrete is demonstrated on the other machines by appropriate concrete strength tests on concrete specimen sampled from the production of each machine concerned as described in A.3, item 10.

Results of full scale testing shall be recorded after J.6.

6.2.2 Initial type testing

Complementary to 6.2.2 of EN 13369:2004 the following shall apply.

Initial type testing according to Annex J shall be performed at the start up of:

- one or more new cross sections to confirm the shear resistance obtained by calculation;
- a new production facility to confirm the proper functioning of the production machine(s).

Initial type testing shall be carried out for each singular cross section or if the sections are grouped into families (see 6.2.1), for a single section of each family.

For each cross section to be tested:

- the prestressing or reinforcement level shall be at least 75 % of the maximum level scheduled for the given cross section;
- three identical elements shall be tested and the reliability criteria of J.5 shall be checked for the individual and mean test results.

NOTE 1 Even to confirm the proper functioning of the casting equipment, the check of the criteria of J.5 requires calculation of shear capacity, irrespective of the declaration of the mechanical resistance properties to the market or not by the manufacturer.

NOTE 2 Cross sections belonging to the ongoing production legally put on the market at the date of publication of this amendment should not be considered as new and should be dispensed consequently from type testing.

6.2.3 Further type testing

Complementary to 6.2.3 of EN 13369:2004 the following shall apply.

Further full scale type testing according to Annex J shall be performed if there is a major change in the design of the cross sections, in concrete strength, in the type or operating principal of the production machine or if there is another change which could significantly affect shear resistance.

Further full scale type testing shall be made on at least one product-family to confirm the shear resistance obtained by calculation (see 6.2.2).

The change of concrete compressive strength by more than 1 class shall be considered as a major change of concrete strength.

Further type testing according to Annex J may also be required in case of doubt about proper functioning of the production machine on the base of the factory production control inspections (e.g. slippage of tendons or failing concrete compaction).

Depending on the nature of the change, 6.2.2 shall apply for the relevant sections and facilities.

6.3 Factory production control

Complementary to 6.3 of EN 13369:2004 following clause shall apply.

The inspection schemes of Annex D of EN 13369:2004 are completed as given in Annex A."

11 Modification to Table A.3, Finished product inspection

Delete row 3 (number 1, Full scale test) of the table as well as footnote ^b and update the numbering in the first column of the Table A.3.

12 Deletion of Annex Y, Choice of CE marking method

Delete Annex Y in its entirety.

EN 1168:2005/prA2:2008 (E)

13 Modification to Annex ZA, Relationship between this European Standard and the essential requirements of EC Directive 89/106/EEC, Construction Products Directive

Replace the content of the whole Annex ZA with the following new text:

"

Annex ZA (informative)

Clauses of this European Standard addressing essential requirements or other provisions of EU Directives

ZA.1 Scope and relevant characteristics

This European Standard has been prepared under the mandate M/100 "Precast Concrete Products" given to CEN by the European Commission and the European Free Trade Association.

The clauses of this European Standard shown in this annex meet the requirements of the mandate given under the EC Construction Products Directive (89/106/EEC).

Compliance with these clauses confers a presumption of fitness of the hollow core slabs covered by this annex for the intended uses indicated herein; reference shall be made to the information accompanying the CE marking.

WARNING — Other requirements and other EC Directives, not affecting the fitness for intended uses, may be applicable to the hollow core slabs falling within the scope of this standard.

NOTE 1 In addition to any specific clauses relating to dangerous substances contained in this standard, there may be requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

NOTE 2 An informative database of European and national provisions on dangerous substances is available at the Construction web site on EUROPA, (accessed through http://ec.europa.eu/enterprise/construction/internal/dangsub/dangmain_en.htm .)

This annex has the same scope as Clause 1 of this standard with regard to the production covered. It establishes the conditions for CE marking of hollow core slabs made of reinforced or prestressed concrete intended for the use indicated below and shows the relevant clauses applicable (see Table ZA.1).

Construction product: hollow core slabs made of reinforced or prestressed concrete.

Intended use: construction of the structures of buildings and other civil engineering works, except bridges.