



SLOVENSKI STANDARD

SIST EN 16508:2016

01-februar-2016

Oprema za začasne gradnje - Okrovne konstrukcije - Tehnične zahteve in splošna zasnova

Temporary works equipment - Encapsulation constructions - Performance requirements and general design

Temporäre Konstruktionen für Bauwerke - Einhausungskonstruktionen - Leistungsanforderungen, Entwurf, Konstruktion und Bemessung

Équipements temporaires de chantiers - Systèmes de protection d'ouvrage - Exigences de performance et conception générale

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Ta slovenski standard je istoveten z: EN 16508:2015

ICS:

91.080.99	Druge konstrukcije	Other structures
91.200	Gradbena tehnologija	Construction technology

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EUROPEAN STANDARD

EN 16508

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English Version

Temporary works equipment - Encapsulation constructions - Performance requirements and general design

Équipements temporaires de chantiers - Systèmes de protection d'ouvrage - Exigences de performance et conception générale

Temporäre Konstruktionen für Bauwerke - Einhausungskonstruktionen - Leistungsanforderungen, Entwurf, Konstruktion und Bemessung

This European Standard was approved by CEN on 26 September 2015.

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

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Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Materials.....	8
5 General requirements	9
5.1 General.....	9
5.2 Access	9
5.3 Openings.....	9
5.4 Moveable structures	9
6 Classification of snow/minimum load classes.....	9
7 Structural design.....	9
7.1 General.....	9
7.2 Support	10
7.3 Method of design	10
7.4 Actions.....	10
7.4.1 General.....	10
7.4.2 Permanent actions, Q_1	10
7.4.3 Variable imposed actions, $Q_2 - Q_4$	11
7.4.4 Climatic loads	11
7.5 Load combinations	12
7.6 Extent of static calculation.....	13
7.6.1 Ultimate limit state.....	13
7.6.2 Static equilibrium	14
7.6.3 Local sliding	15
7.6.4 Loads on flexible sheeting.....	16
8 Documentation.....	16
Annex A (informative) Pressure coefficients for the external pressure, C_{pe}	17
Annex B (informative) A-deviations.....	20
Bibliography.....	21

European foreword

This document (EN 16508:2015) 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 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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EN 16508:2015 (E)

Introduction

The purpose of a temporary roof and encapsulation construction according to this standard is to protect the area inside from climatic influences and dust. It is also used to protect the public from effects from inside.

This European Standard includes rules for structural design, which are of particular relevance to encapsulations.

Individual countries may have national laws or regulations which are not in line with this European standard. Information on that can be found in the attached A-deviations.

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1 Scope

This European Standard specifies performance requirements and design methods for temporary roofs and encapsulations.

It is possible to form the constructions in several ways:

- temporary roof which is supported by an existing permanent construction (Figure 1);
- temporary roof which is supported by a scaffold (Figure 2 and 3);
- temporary roof which is supported by another temporary construction (e.g. steel frame);
- temporary wall which is supported by a separate construction (Figure 4);
- encapsulation which is a complete temporary construction including roof, walls and corresponding temporary supports (Figure 5).

This European Standard sets out general requirements. These are substantially independent of the materials of which the construction is made. This standard is intended to be used as the basis for enquiry and design.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1990 (all parts), *Eurocode: Basis of structural design*

<https://standards.iteh.ai/catalog/standards/sist/c83f69d0-2a5a-4096-b6c4->

EN 1991 (all parts), *Eurocode 1: Actions on structures*

EN 1993 (all parts), *Eurocode 3: Design of steel structures*

EN 1995 (all parts), *Eurocode 5: Design of timber structures*

EN 1999 (all parts), *Eurocode 9: Design of aluminium structures*

EN 12811-1:2003, *Temporary works equipment — Part 1: Scaffolds — Performance requirements and general design*

EN 12811-2, *Temporary works equipment — Part 2: Information on materials*

EN 12812:2008, *Falsework — Performance requirements and general design*

3 Terms and definitions

For the purposes of this document the terms of EN 12811-1 and EN 12812 and the following apply.

3.1

temporary roof

construction intended to cover work activities

EN 16508:2015 (E)

3.2 temporary encapsulation

construction intended to encapsulate work activity areas, consisting of a combination of following elements: roof, walls and supports

Note 1 to entry: For different types, see Figures 1 to 5.

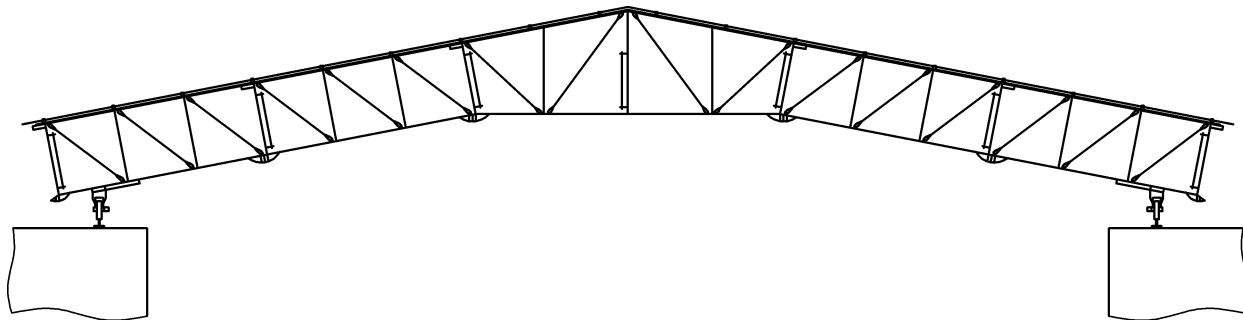


Figure 1 — Example of a temporary roof which is supported by an existing permanent construction



Figure 2 — Examples of temporary roofs supported by scaffolding elements

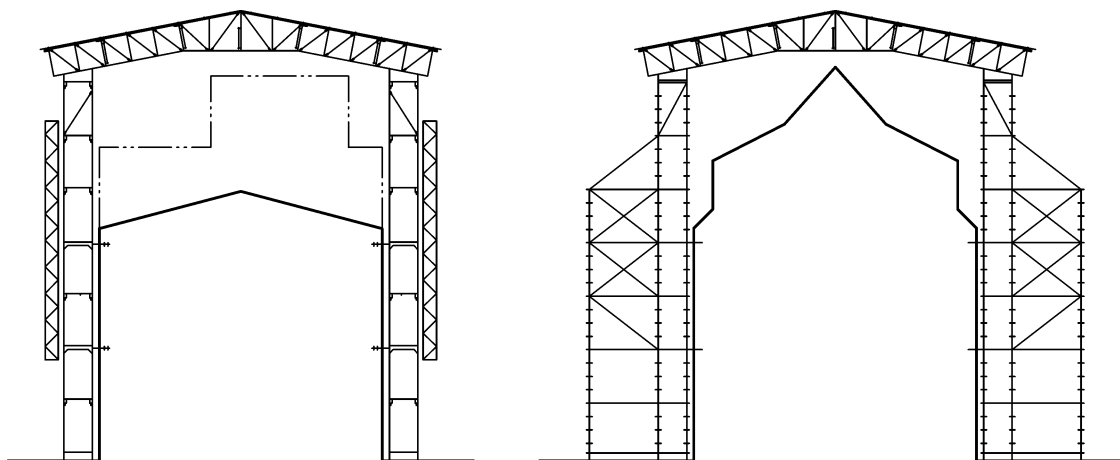
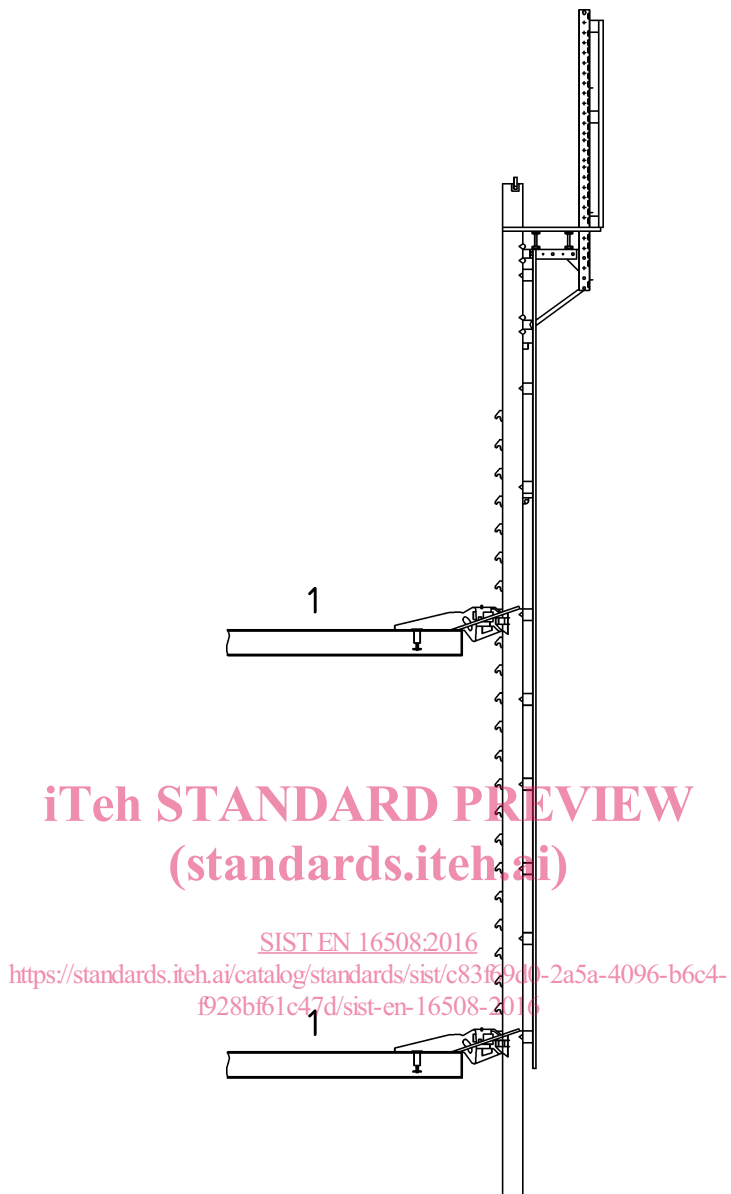


Figure 3 — Examples of temporary roofs supported by working scaffold



Key

- 1 existing support

Figure 4 — Example of a temporary wall supported by a separate construction

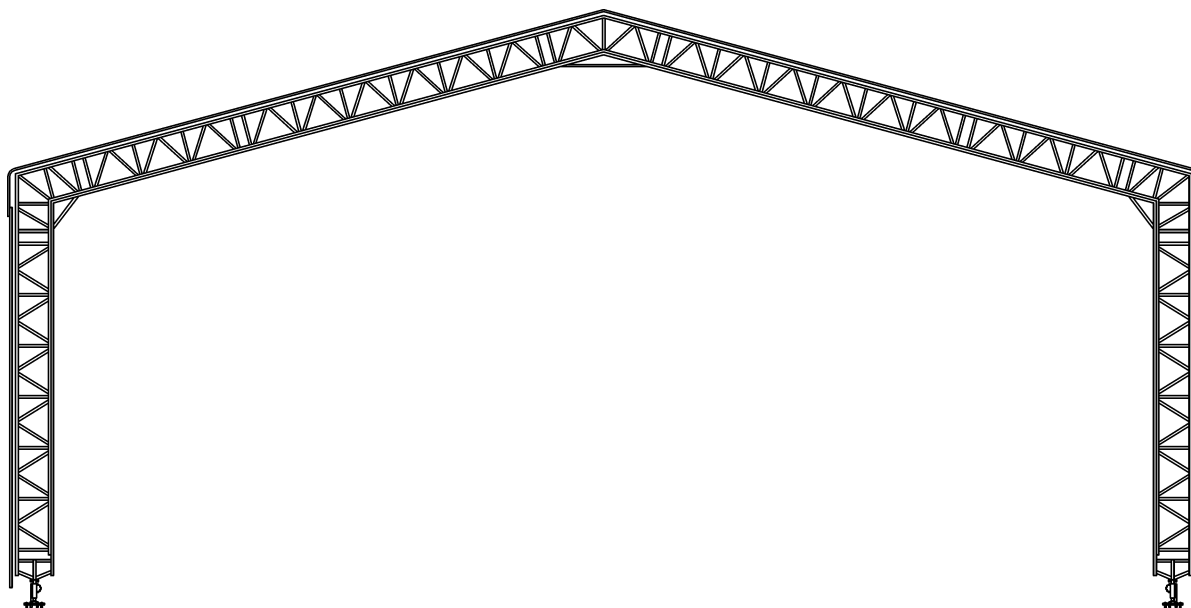


Figure 5 — Example of an encapsulation consisting of a complete temporary construction including roof, walls and supports

- 3.3 kentledge**
material attached to or placed on a structure to provide stability by the action of its dead weight
- 3.4 support**
structure which is to withstand the imposed effects from the construction
- 3.5 sheeting/cladding**
flexible or stiff component, normally intended to provide protection from climatic influences and/or dust protection

4 Materials

Materials shall fulfil the requirements given in European Standards, where design data are provided. If European Standards do not exist, ISO Standards may be applied.

This European standard is not intended to prevent the use of existing components made of materials in accordance with standards that were valid at the time of their introduction.

Materials shall be sufficiently robust and durable to withstand normal working conditions.

Materials shall be free from any impurities and defects, which may affect their satisfactory use.

Additional requirements for some materials are given in EN 12811-2.

This European standard does not intend to prevent the use of non-standardized materials. When materials are used, whose properties in relation to the intended application (e.g. temperature, ageing, UV-degradation) are not given in any available standard, an adequate assessment according to relevant national regulations is required.

If walking on the sheeting is permitted by the supplier of the encapsulation, then it shall be able to withstand the appropriate actions.

NOTE Material requirements for some sheeting are given in EN 13782.

5 General requirements

5.1 General

The components shall be designed so they can be safely erected, used, maintained and dismantled. Attention shall be paid to ergonomic considerations.

5.2 Access

Safe and ergonomic means of access to all areas within the encapsulation and to the temporary roof shall be provided when appropriate. The access should preferably be by means of stairways. Access shall be according to the requirements of EN 12811-1.

NOTE Access to the temporary roof could be required for repair, opening or snow clearance.

5.3 Openings

If necessary, for the purpose of lifting in equipment or materials, it should be possible to remove parts of the structure temporarily. These parts shall be secured when removed.

5.4 Moveable structures

Moveable structures shall be secured against uplift at all times. If such securing is not possible, a maximum wind speed for loosening and moving shall be stated.

6 Classification of snow/minimum load classes

Encapsulations are classified in snow load classes according to Table 1. Exceptions to the snow load classes may be decided by national regulations.

Table 1 — Snow load classes

Snow load class	Guidance	Load kN/m ²
SL 1	No snow load (Minimum load)	0,1
SL 2a	Based upon snow clearance management ^a	0,25
SL 2b	Based upon snow clearance management ^a	0,6
SL 3	Site specific snow load	in accordance with EN 1991-1-3
NOTE See also national annexes.		
^a Snow clearance management may be achieved by physical removal, heating, etc.		

7 Structural design

7.1 General

Each encapsulation, including all its parts, shall be designed, constructed and maintained to ensure that it does not collapse or move unintentionally and so that it can be used safely. This applies at all stages, including erection, modification and until fully dismantled.

The designer shall have access to all relevant design data from the supplier of prefabricated equipment.