



# SLOVENSKI STANDARD

## oSIST prEN 13374:2022

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### Začasne ograje - Specifikacija proizvoda - Metode preskušanja

Temporary edge protection systems - Product specification - Test methods

Temporäre Seitenschutzsysteme - Produktfestlegungen - Prüfverfahren

Garde-corps périphériques temporaires - Spécification du produit - Méthodes d'essai

Ta slovenski standard je istoveten z: prEN 13374

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91.220	Gradbena oprema	Construction equipment

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
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English Version

**Temporary edge protection systems - Product  
specification - Test methods**

Garde-corps périphériques temporaires - Spécification  
du produit - Méthodes d'essai

Temporäre Seitenschutzsysteme -  
Produktfestlegungen - Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 53.

If this draft becomes a European Standard, 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.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (prEN 13374:2022) has been prepared by Technical Committee CEN/TC 53 “Temporary works equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13374:2013+A1:2018.

Temporary edge protection systems are used in construction work, primarily to prevent persons and objects from falling to a lower level from roofs, edges, stairs and other areas where protection is required.

In most European countries temporary edge protection, or other types of fall protection devices, are required when a risk assessment identifies a fall risk regardless of height. In contrast to being secured by a lanyard, greater mobility in the working area is provided when edge protection is in place. The temporary edge protection can in some situations also act as a handrail for people to hold onto when working or walking close to an edge. COUNCIL DIRECTIVE 92/57/EEC was taken into consideration when reviewing this product standard.

While this standard also includes requirements to protect people from falling objects, e.g. by the provision of toe-boards, there could be circumstances where this is insufficient and additional measures, which are beyond the scope of this document, will need to be taken.

Classes specified in this standard are intended to cater for the varied requirements appropriate for different uses.

It is important that the structure to which temporary edge protection is attached can support the load that the system is designed for.

For this document A-deviations has been registered for Finland and Italy, see Annex B.

This standard is a revised version of the 2018 version. In general, the following changes have been made:

- most of the figures have been updated and new figures has been added,
- classification in Clause 4 has been clarified,
- Clause 6 has been clarified,
- Clause 7 has been clarified,
- Annex A has been rewritten and figures added,
- Annex B with A-deviations from Finland and Italy has been added,
- editorial changes and clarifications have been done.

## 1 Scope

This document specifies the requirements and test methods for temporary edge protection systems for use during construction or maintenance of buildings and other structures.

This document applies to edge protection systems for flat and inclined surfaces and specifies the requirements for three classes of temporary edge protection.

For edge protection systems with an arrest function (e.g. falling or sliding down a sloping roof) this document specifies requirements for energy absorption.

This document includes edge protection systems, some of which are fixed to the structure and others, which rely on gravity and friction on flat surfaces.

This document does not provide requirements for edge protection systems intended for:

- protection against impact from vehicles or from other mobile equipment,
- protection from sliding down of bulk loose materials, snow etc,
- protection of areas accessible to the public.

This document does not apply to side protection on scaffolds according to EN 12811-1 and EN 1004-1.

NOTE This does not prevent these systems to be used on temporary structures.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 74-1, *Couplers, spigot pins and baseplates for use in falsework and scaffolds - Part 1: Couplers for tubes - Requirements and test procedures*

EN 74-2, *Couplers, spigot pins and baseplates for use in falsework and scaffolds - Part 2: Special couplers - Requirements and test procedures*

EN 74-3, *Couplers, spigot pins and baseplates for use in falsework and scaffolds - Part 3: Plain base plates and spigot pins - Requirements and test procedures*

EN 338, *Structural timber - Strength classes*

EN 596, *Timber structures - Test methods - Soft body impact test of timber framed walls*

EN 1263-1, *Temporary works equipment - Safety nets - Part 1: Safety requirements, test methods*

EN 1990, *Eurocode - Basis of structural design*

EN 1991-1-4:20050, *Eurocode 1: Actions on structures - Part 1-4: General actions - Wind actions*

EN 1993-1-1, *Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings*

EN 1993-1-2, *Eurocode 3: Design of steel structures - Part 1-2: General rules - Structural fire design*

EN 1993-1-3, *Eurocode 3 - Design of steel structures - Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting*

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EN 1993-1-4, *Eurocode 3 - Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels*

EN 1993-1-5, *Eurocode 3 - Design of steel structures - Part 1-5: Plated structural elements*

EN 1993-1-6, *Eurocode 3 - Design of steel structures - Part 1-6: Strength and Stability of Shell Structures*

EN 1993-1-7, *Eurocode 3 - Design of steel structures - Part 1-7: Plated structures subject to out of plane loading*

EN 1993-1-8, *Eurocode 3: Design of steel structures - Part 1-8: Design of joints*

EN 1993-1-9, *Eurocode 3: Design of steel structures - Part 1-9: Fatigue*

EN 1993-1-10, *Eurocode 3: Design of steel structures - Part 1-10: Material toughness and through-thickness properties*

EN 1993-1-11, *Eurocode 3 - Design of steel structures - Part 1-11: Design of structures with tension components*

EN 1993-1-12, *Eurocode 3 - Design of steel structures - Part 1-12: Additional rules for the extension of EN 1993 up to steel grades S 700*

EN 1993-2, *Eurocode 3 - Design of steel structures - Part 2: Steel Bridges*

EN 1993-3-1, *Eurocode 3 - Design of steel structures - Part 3-1: Towers, masts and chimneys - Towers and masts*

EN 1993-3-2, *Eurocode 3 - Design of steel structures - Part 3-2: Towers, masts and chimneys - Chimneys*

EN 1993-4-1, *Eurocode 3 - Design of steel structures - Part 4-1: Silos*

EN 1993-4-2, *Eurocode 3 - Design of steel structures - Part 4-2: Tanks*

EN 1993-4-3, *Eurocode 3: Design of steel structures — Part 4-3: Pipelines*

EN 1993-5, *Eurocode 3 - Design of steel structures - Part 5: Piling*

EN 1993-6, *Eurocode 3 - Design of steel structures - Part 6: Crane supporting structures*

EN 1995-1-1, *Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings*

EN 1995-1-2, *Eurocode 5: Design of timber structures - Part 1-2: General - Structural fire design*

EN 1995-2, *Eurocode 5: Design of timber structures - Part 2: Bridges*

EN 1999-1-1, *Eurocode 9 — Design of aluminium structures — Part 1-1: General structural rules*

EN 1999-1-2, *Eurocode 9 - Design of aluminium structures - Part 1-2: Structural fire design*

EN 1999-1-3, *Eurocode 9: Design of aluminium structures – Part 1-3: Structures susceptible to fatigue*

EN 1999-1-4, *Eurocode 9 - Design of aluminium structures - Part 1-4: Cold-formed structural sheeting*

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EN 1999-1-5, *Eurocode 9 - Design of aluminium structures - Part 1-5: Shell structures*

EN 12811-2:2004, *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 document, the following terms and definitions apply. ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### **edge protection system**

set of components intended to protect people from falling to a lower level and to retain materials

Note 1 to entry: see Figure 1.

#### 3.2

##### **principal guardrail**

rail or continuous element forming the top of the edge protection system

#### 3.3

##### **intermediate guardrail**

rail or continuous element between the principal guardrail and the working surface

#### 3.4

##### **intermediate protection**

protection barrier formed (e.g. as a fencing structure or a safety net) between the principal guardrail and the working surface

Note 1 to entry: see Figure 2.

#### 3.5

##### **toeboard**

upstanding element provided specifically to prevent materials or persons from falling or sliding off a surface

#### 3.6

##### **post**

principal vertical support of the edge protection system to which the guardrails and toeboards are attached

Note 1 to entry: Components 3.2 to 3.6 can be manufactured in full or part of an integrated edge protection system.

#### 3.7

##### **falling height**

$H_f$

vertical distance between the point on which a person may stand and the lowest point on the protection intended to arrest any fall

Note 1 to entry: See Figure 3.

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**3.8**

**height of the edge protection system**

distance between the uppermost point of the principal guardrail and the working surface measured perpendicular to the working surface

**3.9**

**working surface**

surface on which persons stand, walk or work

**3.10**

**counterweight**

component to (by its own weight) prevent the edge protection system from sliding or from overturning

**3.11**

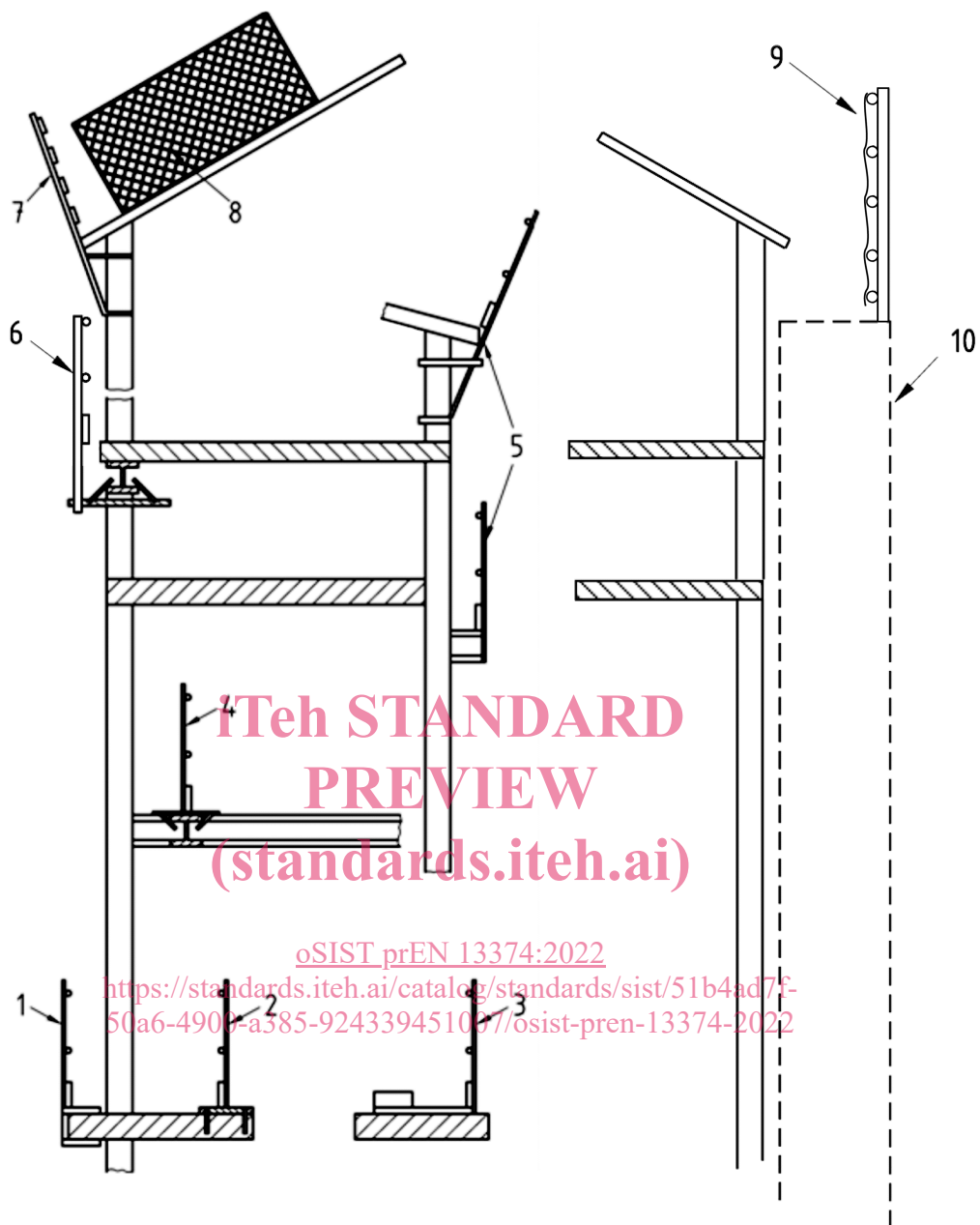
**panel**

assembly of principal guardrail, intermediate guardrail or intermediate protection and a toeboard when applicable

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### Key

- |  |   |
|--|---|
| 1 slab edge clamp system                                 | 6 beam bottom flange clamp system                     |
| 2 fixed to floor type system                             | 7 column clamp system – sloping roof                  |
| 3 counterweighted system                                 | 8 fencing system                                      |
| 4 beam top flange clamp system                           | 9 edge protection on temporary structure              |
| 5 column clamp system – slabs and flat/low sloping roofs | 10 temporary structure (not defined in this standard) |

**Figure 1 — Diagrammatic examples of different types of temporary edge protection**

**NOTE** Figure 1 illustrates some of the various types of edge protection.

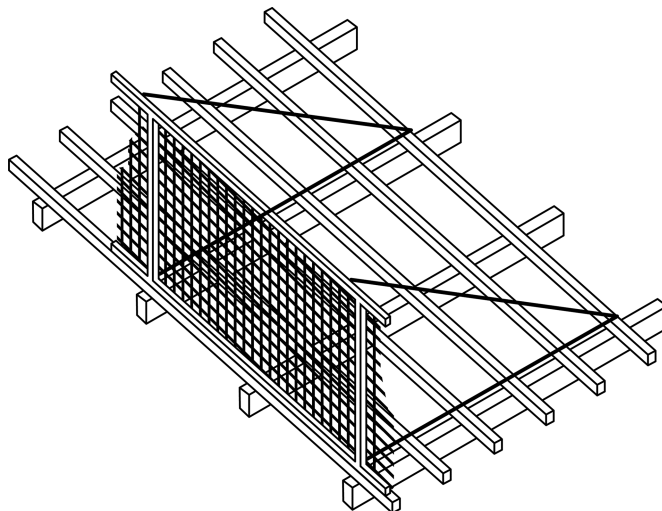
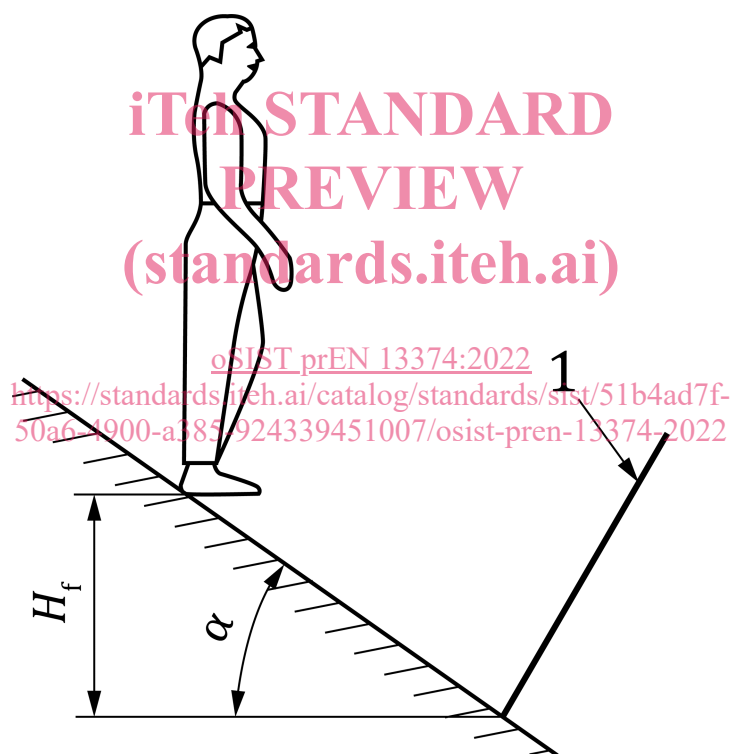


Figure 2 — Example of an edge protection system with a net as intermediate protection on a sloping roof



#### Key

- $H_f$  falling height
- $\alpha$  angle of inclination of the working surface
- 1 edge protection system

Figure 3 — Falling height on an inclined surface

## 4 Classification of edge protection systems

### 4.1 General

Combination of different classes is possible, e.g. a product can comply to A, B and C.

NOTE More guidance about the use of classes is given in Annex A.

### 4.2 Class A

Class A protection provides resistance to static loads only, based on the requirements to:

- support a person leaning on the protection or provide a handhold when walking beside it;
- collectively stop a person who is walking or falling towards the protection;
- withstand the load from accidental loads (misuse) on the protection; and
- withstand wind loads.

### 4.3 Class B

Class B protection provides resistance to static loads and low dynamic actions only, based on the requirements to:

- support a person leaning on the protection or provide a handhold when walking beside it;
- collectively stop a person who is walking or falling towards the protection;
- withstand the load from accidental loads (misuse) on the protection.
- withstand wind loads; and
- collectively stop a person sliding/falling down a sloping surface.

### 4.4 Class C

Class C protection provides resistance to high dynamic forces based on the safety requirements to:

- prevent the fall of a person sliding down a steep sloping surface;
- collectively stop a person sliding/falling down a steep sloping surface.

## 5 Requirements

### 5.1 General

#### 5.1.1 Basic requirements

An edge protection system shall consist of a principal guardrail and either an intermediate guardrail or an intermediate protection. It shall also be possible to attach a toeboard. All components in the system shall be designed to avoid accidental removal or displacement of any component in any direction during use.

The components shall be designed and manufactured so that injury to persons from puncturing or lacerating of the skin is prevented.

NOTE An edge protection system can be manufactured as an integrated unit.