
**Železniške naprave – Zgornji ustroj – Betonski pragi in kretniški betonski pragi – 5.
del: Posebne oblike pragov**

Railway applications - Track - Concrete sleepers and bearers - Part 5 : Special elements

Bahnanwendungen - Oberbau - Gleis- und Weichenschwellen aus Beton - Teil 5 :
Sonderformen

Applications ferroviaires - Voie (Traverses et supports en béton - Partie 5 : Eléments
spéciaux

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SIST EN 13230-5:2004

Ta slovenski standard je istoveten z: **EN 13230-5:2002**

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ICS:

45.080	Tračnice in železniški deli	Rails and railway components
91.100.30	Beton in betonski izdelki	Concrete and concrete products

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EUROPEAN STANDARD
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Railway applications - Track - Concrete sleepers and bearers - Part 5 : Special elements

Applications ferroviaires - Voie - Traverses et supports en
béton - Partie 5 : Eléments spéciaux

Bahnanwendungen - Oberbau - Gleis- und
Weichenschwellen aus Beton - Teil 5 : Sonderformen

This European Standard was approved by CEN on 9 October 2002.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

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Foreword

This document EN 13230-5:2002 has been prepared by Technical Committee CEN/TC 256 "Railway applications", 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 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

This European Standard is one of the series EN 13230 "Railway applications - Track — Concrete sleepers and bearers" which consists of the following parts:

- Part 1: *General requirements*;
- Part 2: *Prestressed monobloc sleepers*;
- Part 3: *Twin-block reinforced sleepers*;
- Part 4: *Prestressed bearers for switches and crossings*;
- Part 5: *Special elements*.

Annexe A is informative.

This document contains bibliographical references.

No other European Standard is superseded or replaced by this European Standard.

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, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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EN 13230-5:2002 (E)**Introduction**

This part of this European Standard defines the specific requirements relating to special elements.

These are additional requirements to EN 13230-1 and are necessary to have a complete standard dealing with special elements.

1 Scope

This part of this European Standard defines additional technical criteria and control procedures relating to the design and manufacture of special elements.

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 13230-1:2002, *Railway applications - Track - Concrete sleepers and bearers - Part 1: General requirements.*

EN 13230-2:2002, *Railway applications - Track - Concrete sleepers and bearers - Part 2: Prestressed monobloc sleepers.*

EN 13230-3:2002, *Railway applications - Track - Concrete sleepers and bearers - Part 3: Twin-block reinforced sleepers.*

EN 13230-4:2002, *Railway applications - Track - Concrete sleepers and bearers - Part 4: Prestressed bearers for switches and crossings.*

3 Definitions

For the purpose of this standard, the following definitions apply.

special element

any individual concrete element supporting rails in the field of railway track, to which this standard is relevant, but which is not included in EN 13230-2, EN 13230-3 or EN 13230-4. Both prestressed and reinforced concrete elements are included.

4 Requirements

A special element shall be defined by detailed drawings including tolerances.

All the tolerances specified in EN 13230-1 which relate to the concrete elements, the rails, the fastening system and gauge shall be specified by the purchaser.

The purchaser shall specify the positive and negative design bending moments to be applied:

- at the rail seat section;
- at the centre section.

Any steel connecting bar shall comply with EN 13230-3, if required by the purchaser.

5 Product testing

EN 13230-1:2002 - Clause 7 is mandatory for any special element supporting rails for railway track applications.

Depending on the type of element and whether the concrete is prestressed or reinforced, the appropriate following clauses shall be used:

- EN 13230-2:2002 - Clause 4;
- EN 13230-3:2002 - Clause 4;
- EN 13230-4:2002 - Clause 4.

The special parts of the element shall be checked according to the requirements of the purchaser and the quality plan of the manufacturing unit.

6 Manufacturing

Depending on the type of element and whether the concrete is prestressed or reinforced, the appropriate following clauses shall be used:

- either EN 13230-2:2002 - Clause 5;
- or EN 13230-3:2002 - Clause 7;
- or EN 13230-4:2002 - Clause 5.

Any special requirements to be incorporated during the manufacturing process shall be defined by the purchaser.

7 Data to be supplied

The purchaser shall supply all the data detailed in EN 13230-1 and either EN 13230-2, EN 13230-3 or EN 13230-4, in addition to any further special requirements.

Annex A (informative)

Definition of special elements - Basic examples

A.1 Prestressed concrete special elements

A.1.1 Special sleepers

[see EN 13230-2]

- with conductor rail;
- with check rail;
- for dual gauge;
- for level crossing;
- for expansion joints;
- for guard rail;
- for ballastless tracks.

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A.1.2 Special bearers

[see EN 13230-4]

- for ballastless tracks;
- for expansion joints;
- for hot-box detectors;
- for bridges;
- bearers for switches and crossings more than 5,5 m long;
- for dual gauge.

A.2 Reinforced concrete special elements

A.2.1 Special sleepers

[see EN 13230-3]

- for ballastless tracks (twin-block or monobloc);
- with third rail;

- with check rail or guard rail;
- for dual gauges;
- for level crossing.

A.2.2 Blocks for ballastless tracks

[see EN 13230-3]

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