



**SLOVENSKI STANDARD**  
**SIST EN 13863-5:2024**

**01-junij-2024**

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**Betonska vozišča - 5. del: Določanje sprijemne napetosti moznikov v betonskih voziščnih konstrukcijah**

Concrete pavements - Part 5: Determination of the bond stress of dowels to be used in concrete pavements

Fahrbahnbefestigungen aus Beton - Teil 5: Bestimmung der Bindungsspannung von Dübeln für Fahrbahnbefestigungen aus Beton

Chaussées en béton - Partie 5 : Détermination de la contrainte d'adhérence de goujons à utiliser dans les chaussées en béton

**Ta slovenski standard je istoveten z: EN 13863-5:2024**

[SIST EN 13863-5:2024](https://standards.slovenski-institut.si/standards/sist/13863-5:2024)

**ICS:**

91.100.30	Beton in betonski izdelki	Concrete and concrete products
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EUROPEAN STANDARD

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## Concrete pavements - Part 5: Determination of the bond stress of dowels to be used in concrete pavements

Chaussées en béton - Partie 5 : Détermination de la contrainte d'adhérence de goujons à utiliser dans les chaussées en béton

Fahrbahnbefestigungen aus Beton - Teil 5: Bestimmung der Verbundspannung von Dübeln für Fahrbahnbefestigungen aus Beton

This European Standard was approved by CEN on 12 February 2024.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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# Document Preview

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

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## European foreword

This document (EN 13863-5:2024) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by BSI.

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 September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

EN 13863, Concrete pavements, is currently composed with the following parts:

- *Part 1: Test method for the determination of the thickness of a concrete pavement by survey method*
- *Part 2: Test method for the determination of the bond between two layers*
- *Part 3: Test methods for the determination of the thickness of a concrete pavement from cores*
- *Part 4: Test methods for the determination of wear resistance of concrete pavements to studded tyres*
- *Part 5: Determination of the bond stress of dowels to be used in concrete pavements*
- *Part 6: Test method for the determination of the tensile strength of concrete on cylindrical discs*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## EN 13863-5:2024 (E)

### 1 Scope

This document specifies a method for the determination of the bond stress of dowels in concrete pavements.

### 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 197-1, *Cement — Part 1: Composition, specifications and conformity criteria for common cements*

EN 206, *Concrete — Specification, performance, production and conformity*

EN 12390-2, *Testing hardened concrete — Part 2: Making and curing specimens for strength tests*

EN 12390-3, *Testing hardened concrete — Part 3: Compressive strength of test specimens*

EN 12390-4, *Testing hardened concrete — Part 4: Compressive strength — Specification for testing machines*

### 3 Terms, definitions and symbols

For the purposes of this document, the following terms, definitions and symbols apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### 3.1 Terms and definitions

##### 3.1.1

##### **bond stress**

stress generated in the contact area between the dowel and the concrete by the restrained movement due to the bond

##### 3.1.2

##### **coating thickness**

thickness of the coating material of the dowel

##### 3.1.3

##### **pull-out force**

force, which works on the dowel during the pull-out test

##### 3.1.4

##### **pull-out distance**

distance, over which the dowel moves during the pull-out test

#### 3.2 Symbols

The signification of the symbols is given in Table 1.