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Standards

Irish Standard  
I.S. EN 13877-2:2013

# Concrete pavements - Part 2: Functional requirements for concrete pavements

## I.S. EN 13877-2:2013

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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English Version

## Concrete pavements - Part 2: Functional requirements for concrete pavements

Chaussées en béton - Partie 2: Exigences fonctionnelles  
pour les chaussées en béton

Fahrbahnbefestigungen aus Beton - Teil 2: Funktionale  
Anforderungen an Fahrbahnbefestigungen aus Beton

This European Standard was approved by CEN on 10 February 2013.

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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## Foreword

This document (EN 13877-2:2013) has been prepared by Technical Committee CEN/TC 227 “Road materials”, 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of an identical text or by endorsement, at the latest by September 2013 and conflicting national standards shall be withdrawn at the latest by September 2013.

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

This document supersedes EN 13877-2:2004.

The following modifications have been made:

- The normative references have been reviewed.
- The definition of continuously reinforced concrete roadbase (CRCR) has been modified to continuously reinforced concrete base (CRCB).
- The units have been updated from  $\text{N/mm}^2$  to MPa.
- The limitation for cracks in jointed unreinforced concrete pavements has been improved.
- Alternative methods to EN 12390 for splitting strength might be used, if defined by relevant national standards or provisions in the place of use. A note has been included after Table 3 to explain it.
- Table 3 has been modified to include more splitting strength classes.
- In Table 4, a new category of Tolerance, T6, has been included.
- Alternative methods to CEN/TS 12390-9 for freeze-thaw resistance might be used, if defined by relevant national standards or provisions in the place of use.
- Regarding quality control, allowance has been included for different number of cores, if defined by specifications in the place of use; and the notes after table 7 have been included as normative text.
- Reference to EN 197-1 has been added to the Bibliography.

This European Standard is one of a series of standards as listed below:

- EN 13877-1, *Concrete pavements — Part 1: Materials*
- EN 13877-2, *Concrete pavements — Part 2: Functional requirements for concrete pavements*
- EN 13877-3, *Concrete pavements — Part 3: Specifications for dowels to be used in concrete pavements*

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **1 Scope**

This European Standard specifies requirements for concrete pavements cast in situ and compacted by vibration.

This European Standard also covers concrete sub-bases as well as concrete wearing courses on bridges.

This European Standard covers concrete pavements in motorways, airfields, pedestrian streets, cycle tracks, storage areas and, in general, all traffic-bearing structures.

## **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 206-1, *Concrete — Part 1: Specification, performance, production and conformity*

EN 12350-1, *Testing fresh concrete — Part 1: Sampling*

EN 12390-1, *Testing hardened concrete — Part 1: Shape, dimensions and other requirements for specimens and moulds*

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

EN 12390-6, *Testing hardened concrete — Part 6: Tensile splitting strength of test specimens*

EN 12390-7, *Testing hardened concrete — Part 7: Density of hardened concrete*

EN 12390-8, *Testing hardened concrete — Part 8: Depth of penetration of water under pressure*

CEN/TS 12390-9, *Testing hardened concrete — Part 9: Freeze-thaw resistance — Scaling*

EN 12504-1, *Testing concrete in structures — Part 1: Cored specimens — Taking, examining and testing in compression*

EN 13863-1, *Concrete pavements — Part 1: Test method for the determination of the thickness of a concrete pavement by survey method*

EN 13863-2, *Concrete pavements — Part 2: Test method for the determination of the bond between two layers*

EN 13863-3, *Concrete pavements — Part 3: Test methods for the determination of the thickness of a concrete pavement from cores*

EN 13863-4, *Concrete pavements — Part 4: Test methods for the determination of wear resistance of concrete pavements to studded tyres*

EN 13877-1, *Concrete pavements — Part 1: Materials*

EN 13877-3, *Concrete pavements — Part 3: Specifications for dowels to be used in concrete pavements*

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