

Concrete pavements —

Part 1: Test method for the determination of the thickness of a concrete pavement by survey method

The European Standard EN 13863-1:2003 has the status of a
British Standard

ICS 93.080.20

National foreword

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English version

Concrete pavements - Part 1: Test method for the determination of the thickness of a concrete pavement by survey method

Revêtement en béton - Méthodes d'essais - Partie 1:
Détermination de l'épaisseur de la dalle de béton par voie
non destructive

Fahrbahnbefestigungen aus Beton - Teil 1: Prüfverfahren
zur Dickenbestimmung einer Fahrbahnbefestigung aus
Beton durch Vermessung

This European Standard was approved by CEN on 25 March 2003.

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Foreword

This document (EN 13863-1:2003) 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of an identical text or by endorsement, at the latest by April 2004, and conflicting national standards shall be withdrawn at the latest by March 2005.

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

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.*

prEN 13863-3, *Concrete pavements - Test methods for functional requirements - Part 3 : Determination of the thickness of a concrete slab.*

prEN 13863-4, *Concrete pavements - Test methods – Part 4: Determination of wear resistance to studded tyres.*

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1 Scope

This European Standard specifies a method for the non-destructive determination of the thickness of a concrete pavement using a surveying procedure.

2 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

2.1

profile

transverse section orthogonal to the axis of the paving lane

2.2

measuring points

defined points having an equal spacing within the profile

3 Equipment

3.1 Levelling instrument.

3.2 Measuring ruler.

3.3 Thin nylon cord.

4 Procedure

The elevations of the surface of the layer under the concrete pavement (measurement 1) and those of the finished concrete pavement (measurement 2) shall be determined either in profiles or in a defined grid. The measurement shall be from either a levelling instrument or by measuring with a ruler the vertical distance to a taut nylon cord set transverse to the longitudinal axis of the paving lane. The spacing between measuring points shall be specified using the specifications in the place of use. The measuring points in each profile shall be spaced equally.

NOTE 1 The profiles of the measurements should be presented in the longitudinal direction.

NOTE 2 The measuring points should be at least 0,25 m from the edge of the pavement.

NOTE 3 Additional profiles should be determined at break points of the pavement, for example where there are modifications to the cross fall at junctions, at side roads and at roundabouts.

5 Results

The thickness of the concrete pavement shall be calculated as the difference between measurements 1 and 2 at each point of measurement

6 Test report

The test report shall contain the following information:

- a) reference to this European Standard;
- b) concrete thickness at each point of measurement, expressed in millimetres;
- c) for pavements of uniform design thickness, the average thickness for each profile and for the whole pavement;
- d) for pavements of variable design thickness, the distance of each point of measurement to a longitudinal paving edge;
- e) the type of measuring equipment used.

7 Tolerance

The tolerance of the measurements shall be 1 mm.

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