

BETOONISEGU KATSETAMINE. OSA 3: VEBE KATSE

Testing fresh concrete - Part 3: Vebe test

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12350-3:2019 sisaldab Euroopa standardi EN 12350-3:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 12350-3:2019 consists of the English text of the European standard EN 12350-3:2019.
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Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

Testing fresh concrete - Part 3: Vebe test

Essais pour béton frais - Partie 3 : Essai Vébé

Prüfung von Frischbeton - Teil 3: Vébé-Prüfung

This European Standard was approved by CEN on 29 April 2019.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 12350-3:2019) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by SN.

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of an identical text or by endorsement, at the latest by December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

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.

This document supersedes EN 12350-3:2009.

This standard is one of a series on testing concrete.

EN 12350, *Testing fresh concrete*, consists of the following parts:

- *Part 1: Sampling and common apparatus*
- *Part 2: Slump test*
- *Part 3: Vebe test*
- *Part 4: Degree of compactability*
- *Part 5: Flow table test*
- *Part 6: Density*
- *Part 7: Air content – Pressure methods*
- *Part 8: Self-compacting concrete – Slump-flow test*
- *Part 9: Self-compacting concrete – V-funnel test*
- *Part 10: Self-compacting concrete – L-box test*
- *Part 11: Self-compacting concrete – Sieve segregation test*
- *Part 12: Self-compacting concrete – J-ring test*

The following amendments have been made to the 2009 edition of this standard:

- a) editorial revision;
- b) use of a trowel to strike off concrete;
- c) reference to common apparatus and specification given in EN 12350-1.

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, Turkey and the United Kingdom.

1 Scope

This document specifies a method for determining the consistence of fresh concrete by means of the Vebe time.

The test is suitable for specimens having a declared value of D of the coarsest fraction of aggregates actually used in the concrete (D_{\max}) not greater than 63 mm.

If the Vebe time is less than 5 s or more than 30 s, the concrete has a consistence for which the Vebe test is unsuitable.

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 12350-1, *Testing fresh concrete — Part 1: Sampling and common apparatus*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 Principle

The fresh concrete is compacted into a slump cone. The cone is lifted clear of the concrete and a transparent disc is swung over the top of the concrete and carefully lowered until it comes in contact with the concrete. The slump of the concrete is recorded. The vibrating table is started and the time taken for the lower surface of the transparent disc to be fully in contact with the grout (the Vebe time), is measured.

5 Apparatus

5.1 Common apparatus for fresh concrete testing

The apparatus listed below for the execution of this test method shall be in accordance with the specification given EN 12350-1 and as specified below;

5.1.1 Vebe meter (Consistometer), see Figure 1, consisting of:

- a) **Container**, made of metal not readily attacked by cement paste, cylindrical in shape (A), having an internal diameter of (240 ± 5) mm and a height of (200 ± 2) mm. The thickness of the wall shall be approximately 3 mm and that of the base approximately 7,5 mm. The container shall be watertight and of sufficient rigidity to retain its shape under rough usage. It shall be fitted with handles and brackets, the latter enabling it to be securely clamped to the top of the vibrating table (G) by means of wing nuts (H);
- b) **Cone**, having the same specification and dimensions as the Hollow Cone specified in EN 12350-1 except the handles shall be at approximately two thirds of the height and there shall be no fixing clamps or foot pieces;