

**Sidumata ja hüdrauliliselt seotud segud. Osa 47:
Katsemeetod California kandevõimeteguri, vahetu
kandevõimeindeksi ja joonpaisumise määramiseks**

Unbound and hydraulically bound mixtures - Part 47: Test method for the determination of California bearing ratio, immediate bearing index and linear swelling

EESTI STANDARDI EESSÕNA

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English Version

Unbound and hydraulically bound mixtures - Part 47: Test method for the determination of California bearing ratio, immediate bearing index and linear swelling

Mélanges traités et mélanges non traités aux liants hydrauliques - Partie 47: Méthode d'essai pour la détermination de l'indice portant Californien (CBR), de l'indice de portance immédiate (IPI) et du gonflement linéaire

Ungebundene und hydraulisch gebundene Gemische - Teil 47: Prüfverfahren zur Bestimmung des CBR-Wertes (California bearing ratio), des direkten Tragindex (IBI) und des linearen Schwellwertes

This European Standard was approved by CEN on 9 March 2012.

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Foreword

This document (EN 13286-47:2012) 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of an identical text or by endorsement, at the latest by October 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

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 13286-47:2004.

The following changes have been made in comparison with EN 13286-47:2004:

- Editorial changes;
- Addition of the 2nd paragraph in Clause 6.

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

- EN 13286-1, *Unbound and hydraulically bound mixtures — Part 1: Test methods for laboratory reference density and water content — Introduction, general requirements and sampling*;
- EN 13286-2, *Unbound and hydraulically bound mixtures — Part 2: Test methods for laboratory reference density and water content — Proctor compaction*;
- EN 13286-3, *Unbound and hydraulically bound mixtures — Part 3: Test methods for laboratory reference density and water content — Vibrocompression with controlled parameters*;
- EN 13286-4, *Unbound and hydraulically bound mixtures — Part 4: Test methods for laboratory reference density and water content — Vibrating hammer*;
- EN 13286-5, *Unbound and hydraulically bound mixtures — Part 5: Test methods for laboratory reference density and water content — Vibrating table*;
- EN 13286-7, *Unbound and hydraulically bound mixtures — Part 7: Cyclic load triaxial test for unbound mixtures*;
- EN 13286-40, *Unbound and hydraulically bound mixtures — Part 40: Test method for the determination of the direct tensile strength of hydraulically bound mixtures*;
- EN 13286-41, *Unbound and hydraulically bound mixtures — Part 41: Test method for the determination of the compressive strength of hydraulically bound mixtures*;
- EN 13286-42, *Unbound and hydraulically bound mixtures — Part 42: Test method for the determination of the indirect tensile strength of hydraulically bound mixtures*;
- EN 13286-43, *Unbound and hydraulically bound mixtures — Part 43: Test method for the determination of the modulus of elasticity of hydraulically bound mixtures*;

- EN 13286-44, *Unbound and hydraulically bound mixtures — Part 44: Test method for the determination of the alpha coefficient of vitrified blast furnace slag*;
- EN 13286-45, *Unbound and hydraulically bound mixtures — Part 45: Test method for the determination of the workability period of hydraulically bound mixtures*;
- EN 13286-46, *Unbound and hydraulically bound mixtures — Part 46: Test method for the determination of the moisture condition value*;
- EN 13286-47, *Unbound and hydraulically bound mixtures — Part 47: Test method for the determination of California bearing ratio, immediate bearing index and linear swelling*;
- EN 13286-48, *Unbound and hydraulically bound mixtures — Part 48: Test method for the determination of degree of pulverisation*;
- EN 13286-49, *Unbound and hydraulically bound mixtures — Part 49: Accelerated swelling test for soil treated by lime and/or hydraulic binder*;
- EN 13286-50, *Unbound and hydraulically bound mixtures — Part 50: Method for the manufacture of test specimens of hydraulically bound mixtures using Proctor equipment or vibrating table compaction*;
- EN 13286-51, *Unbound and hydraulically bound mixtures — Part 51: Method for the manufacture of test specimens of hydraulically bound mixtures using vibrating hammer compaction*;
- EN 13286-52, *Unbound and hydraulically bound mixtures — Part 52: Method for the manufacture of test specimens of hydraulically bound mixtures using vibrocompression*;
- EN 13286-53, *Unbound and hydraulically bound mixtures — Part 53: Methods for the manufacture of test specimens of hydraulically bound mixtures using axial compression*;
- prEN 13286-54, *Unbound and hydraulically bound mixtures — Part 54: Test method for the determination of frost susceptibility — Resistance to freezing and thawing of hydraulically bound mixtures*.

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1 Scope

This European Standard specifies the test methods for the laboratory determination of the California bearing ratio and immediate bearing index.

The tests are appropriate to that part of the mixture up to a maximum particle size of 22,4 mm.

When immersion in water is specified as part of the curing of the specimen, this European Standard also includes the determination of vertical swelling of the specimen before the determination of the California bearing ratio.

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 1097-5:2008, *Tests for mechanical and physical properties of aggregates — Part 5: Determination of the water content by drying in a ventilated oven*

EN 13286-2, *Unbound and hydraulically bound mixtures — Part 2: Test methods for laboratory reference density and water content — Proctor compaction*

3 Terms and definitions

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

3.1

California bearing ratio

ratio used to characterise the bearing capacity of a mixture, determined immediately after compaction, or after a period of curing

3.2

immediate bearing index

immediate California bearing ratio test without surcharge

3.3

Proctor compactive effort

compactive effort used in the Proctor test described in EN 13286-2

3.4

modified Proctor compactive effort

compactive effort used in the modified Proctor test described in EN 13286-2

3.5

curing

period of time and storage condition between manufacture and testing of the specimen for the California bearing ratio

4 Principle

The relationship between force and penetration is determined when a cylindrical piston of a standard cross-sectional area is made to penetrate a specimen of a mixture, contained within a mould, at a given rate.