

Müürimörtide katsemeetodid. Osa 4: Mördisegu konsistentsi määramine (süüvimismõõturiga)

Methods of test for mortar for masonry - Part 4:
Determination of consistence of fresh mortar (by
plunger penetration)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1015-4:2004 sisaldab Euroopa standardi EN 1015-4:1998 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 18.06.2001 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 21.10.1998.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1015-4:2004 consists of the English text of the European standard EN 1015-4:1998.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 18.06.2001 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 21.10.1998.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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Võtmesõnad: katsed, konsistents, mõrdid, müüritööd

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Descriptors: Building materials, mortar, masonry, consistence, testing.

English version

Methods of test for mortar for masonry

**Part 4: Determination of consistence of fresh mortar
(by plunger penetration)**

Méthodes d'essai des mortiers pour
maçonnerie – Partie 4: Détermination
de la consistance des mortiers frais
(par pénétration du piston)

Prüfverfahren für Mörtel für Mauer-
werk – Teil 4: Bestimmung der Kon-
sistenz von Frischmörtel (mit Ein-
dringgerät)

This European Standard was approved by CEN on 1998-09-04.

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CEN

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 125 "Masonry", 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of an identical text or by endorsement, at the latest by April 1999, and conflicting national standards shall be withdrawn at the latest by September 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and includes the performance requirements referred to in the Eurocode for masonry Structures.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Fresh mortar is brought to a defined level of consistence as measured using the plunger penetration rod prior to the assessment of those properties which are used to characterise it.

Consistence is a measure of the fluidity and/or wetness of the fresh mortar and gives a measure of the deformability of the fresh mortar when subjected to a certain type of stress. The consistence however is not directly associated with the manner in which the fresh mortar handles when used by a craftsman.

Normally there will be a linear correlation between the plunger penetration value, measured according to this test method, and the flow value measured in accordance with prEN 1015-3, for the same type of mortar with increasing water content, but the slope will differ with different type of mortars.

1 Scope

This European Standard specifies a method for determining the consistence of freshly mixed mortars (in the following briefly referred to as fresh mortars) including those containing mineral binders and both dense and lightweight aggregates, which is by means of the plunger penetration value.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1015-2 Methods of test for mortar for masonry - Part 2 : Bulk sampling of mortars and preparation of test mortars.

3 Principle

The plunger penetration value of a defined sample of fresh mortar is measured by the vertical penetration of a defined plunger rod which has been allowed to fall freely through a given height into the fresh mortar sample.

4 Apparatus

4.1 A **plunger apparatus** conforming to figure 1, and consisting of the following parts:

Plunger stand with the **base plate (A)**, **frame**, **clamp with guide bushes (B)** and **fixing screw (C)** .

Cylindrical vessel (D) secured centrally in a positioning recess.

Penetration rod (E) with an upper scale and having a **plastics plunger (F)** of circular cross-section at the base and with a hemispherical lower end of the same diameter. The total mass of the penetration rod and plunger is $90 \text{ g} \pm 2 \text{ g}$. The penetration rod is fixed in an initial position 100 mm above the mortar surface, measured from the lower, hemispherical end of the plunger.

4.2 A **tamper** consisting of a rigid, non-absorptive rod of circular cross-section, approximately 40 mm in diameter and approximately 200 mm long. The tamping face is flat and at right angles to the length of the tamper. The mass of the tamper is $0,250 \text{ kg} \pm 0,015 \text{ kg}$.