

**Täitematerjalide soojuslike omaduste ja  
ilmastikukindluse katsetamine. Osa 1:  
Külmakindluse määramine**

Tests for thermal and weathering properties of  
aggregates. Part 1: Determination of resistance to  
freezing and thawing

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1367-1:2000 sisaldab Euroopa standardi EN 1367-1:1999 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 12.10.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1367-1:2000 consists of the English text of the European standard EN 1367-1:1999.

This standard is ratified with the order of Estonian Centre for Standardisation dated 12.10.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

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**English version**

**Tests for thermal and weathering properties of aggregates**

**Part 1: Determination of resistance to freezing and thawing**

Essais pour déterminer les propriétés thermiques et l'altérabilité des granulats – Partie 1: Détermination de la résistance au gel-dégel

Prüfverfahren für thermische Eigenschaften und Verwitterungsbeständigkeit von Gesteinskörnungen – Teil 1: Bestimmung des Widerstandes gegen Frost-Tau-Wechsel

This European Standard was approved by CEN on 1999-04-16.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 154 "Aggregates", 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of an identical text or by endorsement, at the latest by May 2000, and conflicting national standards shall be withdrawn at the latest by December 2003.

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.

This European Standard is one of a series of tests for thermal and weathering properties of aggregates as listed below.

EN 1367-2	Tests for thermal and weathering properties of aggregates Part 2: Magnesium sulfate test
prEN 1367-3	Tests for thermal and weathering properties of aggregates Part 3: Boiling test for "Sonnenbrand basalt" and disintegration of steel slag
EN 1367-4	Tests for thermal and weathering properties of aggregates - Part 4: Determination of drying shrinkage
prEN 1367-5	Tests for thermal and weathering properties of aggregates Part 5: Determination of resistance to thermal shock

Test methods for other properties of aggregates will be covered by Parts of the following European Standards:

EN 932	Tests for general properties of aggregates
EN 933	Tests for geometrical properties of aggregates
EN 1097	Tests for mechanical and physical properties of aggregates
EN 1744	Tests for chemical properties of aggregates
EN 13179	Tests for filler aggregate used in bituminous mixtures

## 1 Scope

This European Standard specifies a test method which provides information on how an aggregate behaves when it is subjected to the cyclic action of freezing and thawing.

NOTE The stresses on aggregates due to frost depend, amongst other factors, on the degree of water saturation as well as the rate of cooling.

The results provide a means for assessing an aggregate's resistance to this form of weathering.

The test is applicable to aggregates having a particle size between 4 mm and 63 mm.

## 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 932-1, *Tests for general properties of aggregates — Part 1: Methods for sampling*

EN 932-2, *Tests for general properties of aggregates — Part 2: Methods for reducing laboratory samples*

EN 932-5, *Tests for general properties of aggregates — Part 5: Common equipment and calibration*

EN 933-2, *Tests for geometrical properties of aggregates — Part 2: Determination of particle size distribution — Test sieves, nominal size of apertures*

EN 1097-2, *Tests for mechanical and physical properties of aggregates — Part 2: Methods for the determination of the resistance to fragmentation*

## 3 Definitions

For the purposes of this European Standard the following definitions apply.

### 3.1

#### **test specimen**

sample used in a single determination when a test method requires more than one determination of a property

### 3.2

#### **laboratory sample**

reduced sample derived from a bulk sample for laboratory testing

### 3.3 constant mass

successive weighings after drying at least 1 h apart not differing by more than 0,1 %

NOTE In many cases constant mass can be achieved after a test portion has been dried for a pre-determined period in a specified oven at  $(110 \pm 5) ^\circ\text{C}$ . Test laboratories can determine the time required to achieve constant mass for specific types and sizes of sample dependent upon the drying capacity of the oven used.