Täitematerjalide soojuslike omaduste ja ilmastikukindluse katsetamine. Osa 6: Külmakindluse määramine soolalahuses (NaCl)

Tests for thermal and weathering properties of aggregates - Part 6: Determination of resistance to freezing and thawing in the presence of salt (NaCl)

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1367-6:2008 sisaldab Euroopa standardi EN 1367-6:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 1367-6:2008 consists of the English text of the European standard EN 1367-6:2008.
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Tests for thermal and weathering properties of aggregates - Part 6: Determination of resistance to freezing and thawing in the presence of salt (NaCl)

Essais pour déterminer les propriétés thermiques et l'altérabilité des granulats - Partie 6: Résistance au gel-dégel au contact du sel

Prüfverfahren für thermische Eigenschaften und Verwitterungsbeständigkeit von Gesteinskörnungen - Teil 6: Beständigkeit gegen Frost-Tau-Wechsel in der Gegenwart von Salz (NaCl)

This European Standard was approved by CEN on 21 June 2008.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 1367-6:2008) 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of an identical text or by endorsement, at the latest by January 2009, and conflicting national standards shall be withdrawn at the latest by January 2009.

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 European Standard is one Part in the EN 1367 series of European Standards under the general title *Tests for thermal and weathering properties of aggregates*. The other parts are:

Part 1: Determination of resistance to freezing and thawing
Part 2: Magnesium sulphate test
Part 3: Boiling test for “Sonnenbrand basalt"
Part 4: Determination of drying shrinkage
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*

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

1 Scope

This European Standard specifies a method of assessing the frost resistance of an aggregate when it is subjected to the cyclic action of freezing and thawing in the presence of 1 % solution of NaCl in de-ionized or distilled water.

The results of this test provide a means for assessing an aggregate's resistance to this form of weathering in areas where frequent freeze-thaw cycling occurs with seawater sprays or abundant de-icers conditions, and where result values of EN 1367-1 test method do not describe correctly aggregate performance in extreme conditions.

This European Standard gives the option to control the thawing sequence either by immersion in water or by using air circulation in the low temperature cabinet to obtain the required reference temperature.

This test method is applicable to coarse aggregates or to coarse aggregates' fractions of all-in materials. This method is not appropriate for lightweight aggregates covered by EN 13055 or aggregates which can not be submitted to 110 °C oven drying.

2 Normative references

The following referenced documents are indispensable for the application of this document. For undated references, the latest edition of the referenced document (including any amendments) 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 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method*

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

3 Terms and definitions

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

3.1
constant mass
successive weighings of the test specimen, after drying it, of at least 1 h apart, not differing by more than 0,1 %

NOTE In many cases constant mass can be achieved after a test specimen has been dried for a pre-determined period in a ventilated drying oven at (110 ± 5) °C.

3.2
reference temperature
temperature of the test specimen measured at the reference temperature measuring point