TÄITEMATERJALIDE GEOMEETRILISTE OMADUSTE KATSETAMINE. OSA 8: PEENOSISTE HINDAMINE. LIIVEKVIVALENDIKATSE

Tests for geometrical properties of aggregates - Part 8: Assessment of fines - Sand equivalent test



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 933-8:2012+A1:2015 sisaldab Euroopa standardi EN 933-8:2012+A1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 933-8:2012+A1:2015 consists of the English text of the European standard EN 933-8:2012+A1:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 13.05.2015.	Date of Availability of the European standard is 13.05.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 91.100.15

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Aru 10, 10317 Tallinn, Eesti; koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 933-8:2012+A1

May 2015

ICS 91.100.15

Supersedes EN 933-8:2012

English Version

Tests for geometrical properties of aggregates - Part 8: Assessment of fines - Sand equivalent test

Essais pour déterminer les caractéristiques géométriques des granulats - Partie 8 : Évaluation des fines - Équivalent de sable

Prüfverfahren für geometrische Eigenschaften von Gesteinskörnungen - Teil 8: Beurteilung von Feinanteilen -Sandäquivalent-Verfahren

This European Standard was approved by CEN on 6 November 2011 and includes Amendment 1 approved by CEN on 20 April 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

	rd	
	Scope	
	Normative references	5
	Terms and definitions	5
	Principle	6
	Reagents	6
	Apparatus	6
	Preparation of test specimens	12
	General	
2 3	First subsampleSecond subsample	
	Procedure	
	General	
	Filling of the graduated cylinders	
3	Shaking the graduated cylinders	14
4 5	Washing	14
		16
	Calculation and expression of results	
)	Test report	17
)).1	·	17
)).1).2 nnex /	Test report	17 17 17
)).1).2 nnex /	Test report	17 17 17 e of the

Foreword

This document (EN 933-8:2012+A1:2015) 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 November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.

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 A EN 933-8:2012 A.

This document includes Amendment 1 approved by CEN on 2015-04-19.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A] (A)

This revised standard differs from EN 933-8:1999 for 0/2 mm size aggregates where the fines content was not limited to 10 %.

This European Standard is one of a series of standards for tests for geometrical properties of aggregates. Test methods for other properties of aggregates are covered by the following European Standards:

- EN 932, Tests for general properties of aggregates;
- EN 1097, Tests for mechanical and physical properties of aggregates;
- EN 1367, Tests for thermal and weathering properties of aggregates;
- EN 1744, Tests for chemical properties of aggregates;
- EN 13179, Tests for filler aggregate used in bituminous mixtures.

The other parts of EN 933, Tests for geometrical properties of aggregates, will be:

- Part 1: Determination of particle size distribution Sieving method;
- Part 2: Determination of particle size distribution Test sieves, nominal size of apertures;
- Part 3: Determination of particle shape Flakiness index;
- Part 4: Determination of particle shape Shape index;
- Part 5: Determination of percentage of crushed and broken surfaces in coarse aggregate particles;
- Part 6: Assessment of surface characteristics Flow coefficient of aggregates;
- Part 7: Determination of shell content Percentage of shells in coarse aggregates;
- Part 9: Assessment of fines Methylene blue test;
- Part 10: Assessment of fines Grading of filler aggregates (air jet sieving);

Part 11: Classification test for the constituents of coarse recycled aggregate.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of s, ranc.
Malta, r
Azerland, T.

Alloward and the second and the se Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard describes the reference method used for type testing and in case of dispute for the determination of the sand equivalent value of 0/2 mm fraction (for 0/4 mm, see Annex A) in fine aggregates or all-in aggregates. For other purposes, in particular factory production control, other methods may be used provided that an appropriate working relationship with the reference method has been established.

2 Normative references

The following referenced documents are indispensable for the application 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 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

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

3 Terms and definitions

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

3.1

fines

particle size fraction of an aggregate which passes the 0,063 mm sieve

3.2

laboratory sample

sample intended for laboratory testing

3.3

particle size fraction (d_i/D_i)

fraction of an aggregate passing the larger (D_i) of two sieves and retained on the smaller (d_i)

NOTE The lower limit d_i may be zero.

3.4

subsample

sample obtained by means of a sample reduction procedure

3.5

test portion

sample used as a whole in a single test