



**NSAI**  
Standards

Irish Standard  
I.S. EN 933-8:2012+A1:2015

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

**I.S. EN 933-8:2012+A1:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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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.

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## 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of an identical text or by endorsement, at the latest by November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.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  $\overline{A1}$  EN 933-8:2012  $\overline{A1}$ .

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  $\overline{A1}$   $\overline{A1}$ .

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)*;

**EN 933-8:2012+A1:2015 (E)**

— *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 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

#### **finer**

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

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