



**SLOVENSKI STANDARD**  
**SIST EN 933-1:1999/A1:2005**  
**01-december-2005**

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DfYg\_i g] [ Yca Yf] b] \ "UgfbcgH] U fY[ Urcj 'E'%'XY.'i [ cHJj `Ub^Y'nf bUj cgh] E  
A YrcXUgYUb^U

Tests for geometrical properties of aggregates - Part 1: Determination of particle size distribution - Sieving method

Prüfverfahren für geometrische Eigenschaften von Gesteinskörnungen - Teil 1: Bestimmung der Korngrößenverteilung - Siebverfahren

**iTeh STANDARD PREVIEW**

Essais pour déterminer les propriétés géométriques des granulats - Partie 1: Détermination de la granularité - Analyse granulométrique par tamisage

[SIST EN 933-1:1999/A1:2005](https://standards.iteh.ai/catalog/standards/sist/4599bbc9-58d1-438b-b78a-251852c61c4/sist-en-933-1-1999-a1-2005)

Ta slovenski standard je istoveten z: **EN 933-1:1997/A1:2005**

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**ICS:**

91.100.15

**SIST EN 933-1:1999/A1:2005**

**en**

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SIST EN 933-1:1999/A1:2005

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ICS 91.100.15

English Version

## Tests for geometrical properties of aggregates - Part 1: Determination of particle size distribution - Sieving method

Essais pour déterminer les propriétés géométriques des  
granulats - Partie 1: Détermination de la granularité -  
Analyse granulométrique par tamisage

Prüfverfahren für geometrische Eigenschaften von  
Gesteinskörnungen - Teil 1: Bestimmung der  
Korngrößenverteilung - Siebverfahren

This amendment A1 modifies the European Standard EN 933-1:1997; it was approved by CEN on 11 August 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. 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.

This amendment 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 Central Secretariat has the same status as the official versions.

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

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

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## Foreword

This European Standard (EN 933-1:1997/A1:2005) has been prepared by Technical Committee CEN/TC 154 "Aggregates", the secretariat of which is held by BSI.

This Amendment to the European Standard EN 933-1:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

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

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## 1 Modification to Clause 1 Scope

Amend the second sentence, “It applies to aggregates, up to 63 mm...”, to read “It applies to aggregates ..., up to 90 mm...”

## 2 Modification to Clause 2 Normative references

Delete all occurrences of "pr" preceding EN references (and similarly in the rest of the standard from clause '1 Scope' onwards).

Make dated reference of EN 933-2 undated.

## 3 Modification to Clause 6 Preparation of test portion

In table 1, first column, add the 90 mm aggregate size, corresponding to a test portion mass of at least 80 kg in the second column. Attach a note 4 to this test portion mass and add the following note, after “NOTE 3”:

"NOTE 4 For coarse aggregate of upper sieve size D greater than 63 mm, 80 kg or a test portion mass sufficient to ensure that at least 40kg of aggregate passes the 63mm test sieve shall be adopted.

Amend “NOTE 1” to read “For aggregates of other sizes below 63 mm...”

## 4 Modification to 8.1 Calculations

Add the following, at the end of the clause: [SIST EN 933-1:1999/A1:2005](https://standards.iteh.ai/catalog/standards/sist/4599bbc9-58d1-438b-b78a-23f8b32c61c4/sist-en-933-1-1999-a1-2005)

“For dry sieving,  $f = 100P/M_1$ ” <https://standards.iteh.ai/catalog/standards/sist/4599bbc9-58d1-438b-b78a-23f8b32c61c4/sist-en-933-1-1999-a1-2005>

## 5 Adding a new clause “8.3 Precision”

The following precision values have been issued from the document “The Proposed CEN Method For The Determination of the Particle Size distribution of aggregates. Sieve test on sand. Results Of The 1996/7 Cross-Testing Experiment.” of the European Project N°134.

The repeatability  $r_1$  and reproducibility  $R_1$  values have been determined on the basis of two repetitions of tests carried out on each of three fine aggregate fractions, a 0/0.4 and two 0/2mm fractions, in 17 laboratories from 9 European countries. Each laboratory has prepared (using a riffle box) and successively tested two different masses of samples, 200g and 30g.

For any sieve size of the basic set comprised between 0.063 and 4mm, the precision values can be stated as follows :

$$r_1 = 0.042 \sqrt{X.(100.0 - X)}$$

$$R_1 = 0.086 \sqrt{X.(100.0 - X)}$$

Where “X” represents the average of the cumulative percent passing the actual sieve size.

It is highlighted that precision is highly dependent on the loading of individual sieves, overloaded sieves leading to degraded precision data and lightly loaded sieves leading to better precision data.”

## 6 Modification to Annex C

In the last column of the second frame (Cumulative percentages passing), replace the formula with the following:

“ $100 - \Sigma(R_i/M_1 \times 100)$ ”

Add the following in the last but one frame, to accompany the formula:

“for washing and sieving”

Add the following in the last but one frame, after the text:

“For dry sieving,  $f = 100P/M_1$ ”

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