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Standards

Irish Standard  
I.S. EN 933-3:2012

# Tests for geometrical properties of aggregates - Part 3: Determination of particle shape - Flakiness index

## I.S. EN 933-3:2012

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

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*This document replaces:*  
EN 933-3:1997

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English Version

## Tests for geometrical properties of aggregates - Part 3: Determination of particle shape - Flakiness index

Essais pour déterminer les caractéristiques géométriques  
des granulats - Partie 3: Détermination de la forme des  
granulats - Coefficient d'aplatissement

Prüfverfahren für geometrische Eigenschaften von  
Gesteinskörnungen - Teil 3: Bestimmung der Kornform -  
Plattigkeitskennzahl

This European Standard was approved by CEN on 29 October 2011.

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 933-3:2012) 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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

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 EN 933-3:1997.

The following changes have been made to the previous edition:

- a) the CEN Technical Specification has been adopted as European Standard;
- b) the document has been editorially revised.

This standard forms part of a series of tests for geometrical properties of aggregates. Test methods for other properties 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.*

EN 933, *Tests for geometrical properties of aggregates*, consists of the following parts:

- *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 for coarse aggregates;*
- *Part 8: Assessment of fines — Sand equivalent test;*

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- *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, 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.

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