

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

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

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A rapidly developed recommendatory document based on the consensus of the SWiFT xxx:

participants of an NSAI workshop.

This document replaces: EN 933-3:1997

panel and subject to public consultation.

Published: This document is based on:

27 January, 2012 EN 933-3:2012

This document was published under the authority of the NSAI and comes into effect on:

27 January, 2012

ICS number:

91.100.15

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# EUROPEAN STANDARD NORME EUROPÉENNE

EN 933-3

**EUROPÄISCHE NORM** 

January 2012

ICS 91.100.15

Supersedes EN 933-3:1997

#### **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.

CEN members are the national standards bodies of 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 United Kingdom.



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

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# EN 933-3:2012 (E)

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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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