

Tests for geometrical properties of aggregates

Part 2. Determination of particle size distribution — Test sieves, nominal size of apertures

The European Standard EN 933-2 : 1995 has the status of a
British Standard

ICS 91.100.20

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee B/502, Aggregates, upon which the following bodies were represented:

Aggregate Concrete Block Association
 Association of Consulting Engineers
 Association of Lightweight Aggregate Manufacturers
 British Aggregate Construction Materials Industries
 British Cement Association
 British Civil Engineering Test Equipment Manufacturers' Association
 British Geological Sciences
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 Electricity Association
 Institution of Concrete Technology
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 Institution of Structural Engineers
 Local Authority Organizations
 Sand and Gravel Association Limited
 Society of Chemical Industry

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

County Surveyors' Society
 Department of Trade and Industry (National Measurement Accreditation Service)
 Department of Transport (Highways Agency)

This British Standard, having been prepared under the direction of the Sector Board for Building and Civil Engineering, was published under the authority of the Standards Board and comes into effect on 15 May 1996

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National foreword

This British Standard has been prepared by Technical Committee B/502. It is the English language version of EN 933-2 : 1995 *Tests for geometrical properties of aggregates Part 2: Determination of particle size distribution — Test sieves, nominal size of apertures*, published by the European Committee for Standardization (CEN).

It is part of a series of test methods based on the geometrical properties of aggregates.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

EUROPEAN STANDARD

EN 933-2

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EUROPÄISCHE NORM

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Descriptors: aggregates, tests, geometric characteristics, grain size, grain size analysis, sieve analysis, sieves, wire cloth, sieve plates, designation, dimensions, openings, ratings

English version

Tests for geometrical properties of aggregates —
 Part 2: Determination of particle size distribution — Test sieves,
 nominal size of apertures

Essais pour déterminer les caractéristiques
 géométriques des granulats —
 Partie 2: Détermination de la granularité — Tamis
 de contrôle, dimensions nominales des ouvertures

Prüfverfahren für geometrische Eigenschaften von
 Gesteinskörnungen —
 Teil 2: Bestimmung der Korngrößenverteilung —
 Analysensiebe, Nennweite der Sieböffnungen

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 Comité Européen de Normalisation
 Europäisches Komitee für Normung

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Ref. No. EN 933-2 : 1995 E

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 154, Aggregates, of which the Secretariat 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 May 1996, and conflicting national standards shall be withdrawn at the latest by May 1996.

This standard forms part of a series of tests for geometrical properties of aggregates. Test methods for other properties of aggregates are covered by Parts of the following European Standards:

prEN 932	<i>Tests for general properties of aggregates</i>
prEN 1097	<i>Tests for mechanical and physical properties of aggregates</i>
prEN 1367	<i>Tests for thermal and weathering properties of aggregates</i>
prEN 1744	<i>Tests for chemical properties of aggregates</i>

The other Parts of EN 933 will be:

Part 1	<i>Determination of particle size distribution — Sieving method</i>
Part 3	<i>Determination of particle shape — Flakiness index</i>
Part 4	<i>Determination of particle shape of aggregates — Shape index</i>
Part 5	<i>Determination of crushed and broken surfaces in coarse aggregate particles</i>
Part 6	<i>Determination of texture/shape — Flow coefficient of coarse aggregates</i>
Part 7	<i>Determination of shell content — Percentage of shells for coarse aggregates</i>
Part 8	<i>Assessment of fines — Sand equivalent test</i>
Part 9	<i>Assessment of fines — Methylene blue test</i>
Part 10	<i>Determination of fines — Grading of fillers</i>

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This Part of this European Standard specifies nominal aperture sizes and shape for woven wire cloth and perforated plate in test sieves used for test methods for aggregates.

It applies to aggregates of natural or artificial origin including lightweight aggregates.

2 Normative references

This European Standard incorporates by dated or by undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

ISO 3310-1	1990	<i>Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth</i>
ISO 3310-2	1990	<i>Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate</i>
ISO 565	1990	<i>Test sieves — Woven metal wire cloth, perforated plate and electroformed sheet — Nominal sizes of openings.</i>

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1 woven wire cloth: wires which cross each other to form the square apertures.

3.2 perforated plate: plate with uniform square holes in symmetrical arrangement.

4 Designation

Sieves with aperture size of 4 mm and above shall be perforated plate square hole test sieves conforming to ISO 3310-2. Below 4 mm they shall be woven wire test sieves conforming to ISO 3310-1.

NOTE. Woven wire sieves of 4 mm and above may be used if a correlation can be established with results obtained using perforated plate sieves. In cases of dispute a reference test should be carried out using perforated plate sieves.

5 Nominal size of apertures

When a particle size distribution is carried out, sieves from the following series of aperture sizes between d and D of the designated product size, shall be included, in addition to any other required sieves:

0,063 mm, 0,125 mm, 0,250 mm, 0,500 mm, 1 mm, 2 mm, 4 mm, 8 mm, 16 mm, 31,5 mm, 63 mm, 125 mm

For tests where particular sieves are required these shall be selected from the R 20 series specified in ISO 565.

NOTE. The R 20 series from 0,063 mm to 125 mm increases by step ratio $10^{1/20} = 1,12$.

6 Shape of apertures

Only sieves with square apertures shall be used.

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