

ICS 91.100.15

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Sales http://www.standards.ie

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on: 18 June 2008

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I.S. EN 1097-7:2008

EUROPEAN STANDARD

EN 1097-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2008

ICS 91.100.15

Supersedes EN 1097-7:1999

English Version

Tests for mechanical and physical properties of aggregates -Part 7: Determination of the particle density of filler - Pyknometer method

Essais pour déterminer les caractéristiques mécaniques et physiques des granulats - Partie 7: Détermination de la masse volumique absolue du filler - méthode au picnomètre Prüfverfahren für mechanische und physikalische Eigenschaften von Gesteinskörnungen - Teil 7: Bestimmung der Rohdichte von Füller - Pyknometer-Verfahren

This European Standard was approved by CEN on 4 February 2008.

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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 Management Centre has the same status as the official versions.

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

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EN 1097-7:2008 (E)

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I.S. EN 1097-7:2008

Foreword

This document (EN 1097-7:2008) 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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

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 1097-7:1999.

This European Standard forms part of a series of standards for tests for mechanical and physical properties of aggregates. Test methods for other properties of aggregates will be covered by parts of the following European Standards:

- EN 932, Tests for general properties of aggregates
- EN 933, Tests for geometrical 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 1097 will be:
- Part 1: Determination of the resistance to wear (micro-Deval)
- Part 2: Methods for the determination of resistance to fragmentation
- Part 3: Determination of loose bulk density and voids
- Part 4: Determination of the voids of dry compacted filler
- Part 5: Determination of the water content by drying in a ventilated oven
- Part 6: Determination of particle density and water absorption
- Part 8: Determination of the polished stone value
- Part 9: Determination of the resistance to wear by abrasion from studded tyres Nordic test
- Part 10: Determination of water suction height

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1 Scope

This standard describes the reference method used for type testing and in cases of dispute for the determination of the particle density of filler by means of a pyknometer. 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

ISO 3507, Laboratory glassware - Pyknometers

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

laboratory sample

reduced sample derived from a bulk sample for laboratory testing

3.2

test portion

sample used as a whole in a single test

3.3

test specimen

sample used in a single determination when a test method requires more than one determination of a property

3.4

constant mass

successive weighings after drying at least 1 h apart not differing by more than 0,1 %

NOTE In many cases constant mass can be achieved after a test portion has been dried for a pre-determined period in a specified oven (see 6.6) at (110 ± 5) °C. Test laboratories can determine the time required to achieve constant mass for specific types and sizes of sample dependent upon the drying capacity of the oven used.

3.5

particle density of filler

mass per volume unit of filler excluding any trapped air

3.6

filler aggregate

aggregate, most of which passes a 0,063 mm sieve, which can be added to construction materials to provide certain properties



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