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**BS EN 13383-2:2013**



BSI Standards Publication

# Armourstone

## Part 2: Test methods

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## Armourstone - Part 2: Test methods

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## Foreword

This document (EN 13383-2:2013) 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of an identical text or by endorsement, at the latest by November 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.

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 13383-2:2002.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

In comparison with the previous version, the following changes have been made.

- changes and clarifications to the sampling and sample reduction clauses, including a new informative annex on sampling from waterborne plant;
- introduction of requirements for sample preparation for the Micro-Deval test previously in EN 13383-1;
- deletion of an unused wet sieving method for the determination of particle size distribution of coarse gradings of armourstone.
- removal to an informative annex of a previously normative alternative to the reference method for determination of mass distribution of light and heavy gradings.

Otherwise the majority of the changes from the previous version are editorial.

EN 13383 *Armourstone* consists of the following parts:

*Part 1: Specifications*

*Part 2: Test methods*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, 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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## 1 Scope

This European Standard specifies sampling and test methods for natural, artificial and recycled aggregates for use as armourstone. This European Standard specifies the reference methods to be used for type testing and in case of dispute where an alternative method has been used. For other purposes, in particular factory production control, other methods may be used provided that an appropriate working relationship with the test method has been established.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 932-1:1996, *Tests for general properties of aggregates — Part 1: Methods for sampling*

EN 932-5, *Tests for general properties of aggregates — Part 5: Common equipment and calibration*

EN 933-1, *Tests for geometrical properties of aggregates — Part 1: Determination of particle size distribution — Sieving method*

EN 933-2, *Tests for geometrical properties of aggregates — Part 2: Determination of particle size distribution — Test sieves, nominal size of apertures*

EN 933-3, *Tests for geometrical properties of aggregates — Part 3: Determination of particle shape - Flakiness index*

EN 1097-1:2011, *Tests for mechanical and physical properties of aggregates — Part 1: Determination of the resistance to wear (micro-Deval)*

EN 1097-5, *Tests for mechanical and physical properties of aggregates — Part 5: Determination of the water content by drying in a ventilated oven*

ISO 3310-2, *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate*

## 3 Terms and definitions

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

### 3.1

#### **armourstone grading**

armourstone designation with a nominal lower and upper limit

Note 1 to entry: This designation accepts the presence of undersize and oversize pieces of armourstone.

### 3.2

#### **nominal lower limit**

mass or sieve size in a grading below which the armourstone pieces are considered to be undersized

### 3.3

#### **nominal upper limit**

mass or sieve size in a grading above which the armourstone pieces are considered to be oversized