

**BS 8615-1:2019**



**BSI Standards Publication**

## **Specification for pozzolanic materials for use with Portland cement**

Part 1: Natural pozzolana and natural calcined pozzolana

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## Summary of pages

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# Foreword

## Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 January 2019. It was prepared by Subcommittee B/517/4, *Additions for concrete*, under the authority of Technical committee B/517, *Concrete*. A list of organizations represented on these committees can be obtained on request to their secretary.

## Relationship with other publications

BS 8615 is published in two parts:

- *Part 1: Natural pozzolana and natural calcined pozzolana*
- *Part 2: High reactivity natural calcined pozzolana*

## Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

## Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

## 1 Scope

This British Standard specifies requirements for the production, chemical composition, mechanical and physical properties of pozzolanic materials for use in combination with Portland cement class 42.5 N or greater, conforming to BS EN 197-1:2011, as a component of concrete, mortar or grout. It also specifies requirements for marking, provision of information and conformity criteria for the manufacture's autocontrol system.

This British Standard covers the following types of pozzolana:

- a) natural pozzolana (P) as defined in BS EN 197-1:2011, 5.2.3.2; and
- b) natural calcined pozzolana (Q), (excluding high reactivity natural calcined pozzolana conforming to BS 8615-2), as defined in BS EN 197-1:2011, 5.2.3.3.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions 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.

BS 6100-9, *Building and civil engineering – Vocabulary – Part 9: Work with concrete and plaster*

BS EN 196-1, *Methods of testing cement – Part 1: Determination of strength*

BS EN 196-2:2013, *Method of testing cement – Part 2: Chemical analysis of cement*

BS EN 196-3, *Method of testing cement – Part 3: Determination of setting times and soundness*

BS EN 196-6, *Methods of testing cement – Part 6: Determination of fineness*

BS EN 196-7, *Methods of testing cement – Part 7: Methods of taking and preparing samples of cement*

BS EN 197-1:2011, *Cement – Part 1: Composition, specifications and conformity criteria for common cements*

BS EN 450-1:2012, *Fly ash for concrete – Part 1: Definitions, specifications and conformity criteria*

BS EN 451-1, *Method of testing fly ash – Part 1: Determination of free calcium oxide content*

BS EN 451-2, *Method of testing fly ash – Part 2: Determination of fineness by wet sieving*

BS EN 933-9, *Tests for geometrical properties of aggregates – Part 9: Assessment of fines – Methylene blue test*

BS EN 933-10, *Tests for geometrical properties of aggregates – Part 10: Assessment of fines – Grading of filler aggregates (air jet sieving)*

BS EN 1097-7, *Tests for mechanical and physical properties of aggregates – Part 7: Determination of the particle density of filler – Pycnometer method*

BS EN 13639, *Determination of total organic carbon in limestone*

BS ISO 29581-2, *Cement – Test methods – Part 2: Chemical analysis by X-ray fluorescence*

ASTM C1260, *Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)*

ASTM C1567, *Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method)*