

Masonry cement —

Part 1: Specification

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Committees responsible for this Draft for Development

The preparation of this Draft for Development was entrusted by Technical Committee B/516, Cement and lime, to Subcommittee B/516/10, Masonry cement, upon which the following bodies were represented:

- Brick Development Association
- British Aggregate Construction Materials Industries
- British Cement Association
- British Lime Association
- British Precast Concrete Federation
- Cementitious Slag Makers' Association
- Department of the Environment (Building Research Establishment)
- Mortar Producers' Association
- Quality Ash Association

This Draft for Development 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 July 1995

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National foreword

This Draft for Development is the English language version of ENV 413-1:1994 *Masonry cement — Part 1: Specification*, published by the European Committee for Standardization (CEN).

ENV 413-1 was prepared by Technical Committee 51, Cement and building limes, as part of a package of standards, harmonized within the member countries of CEN that deals with design and construction of masonry, including specifications for its constituent products and materials with their supporting test methods. The intention is that the complete European package will ultimately replace, in each country, its national package of standards so that products can be traded freely.

ENV 413-1 has the status of a prestandard because some of its technical requirements are only agreed provisionally. Further consideration will be given by the CEN Committee during its three year period of validity in order to refine these requirements so that it can be transformed into a European Standard that will then supersede BS 5224:1976.

DD ENV 413-1 and BS EN 413-2 *Masonry cement — Part 2: Test methods*, cover masonry cements having a Portland cement base, formulated to have properties suited for use in building mortars for bricklaying, blocklaying, rendering and plastering.

DD ENV 413-1 uses the concept of characteristic values for the various requirements specified. These are related to a defined sampling and testing procedure by the manufacturer (autocontrol). The sampling plan sets out the minimum testing frequencies and the results of these tests are used to assess conformity. This serves to define the quality and characteristics of the masonry cement. In addition to characteristic values, an additional series of limiting values (known as major defects) are defined.

DD ENV 413-1 covers a much wider range of types and compositions than BS 5224:1976. Significant changes in the manner in which masonry cements are specified are also introduced. Strength classes are defined on the basis of 28 day mortar compressive strength. Non air-entrained masonry cements are included. Masonry cement that conformed to BS 5224:1976 is equivalent to Class MC 12.5 of ENV 413-1 with air-entraining agent. There is no UK experience of lower strength Class MC 5 with air-entraining agent or Classes MC 12.5X and MC 22.5X without air-entraining agent. Class MC 5 would be considered unsuitable for external masonry in the UK and non air-entrained Classes MC 12.5X and MC 22.5X would be considered to be more susceptible to the action of freezing and thawing in fresh and hardened mortar.

Differences between DD ENV 413-1 and BS 5224:1976 are summarized in National annex NA. National annex NB gives further information on the measurement of workability described in Annex A of the prestandard. Safety precautions to be taken when using masonry cement are recommended in National annex NC.

This publication is not to be regarded as a British Standard

It is being issued in the Draft for Development series of publications and is of a provisional nature because work to establish a requirement for cohesivity is still in progress. It should be applied on this provisional basis so that information and experience of its practical application may be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the European organization responsible for its conversion to a European Standard. A review of this publication will be initiated 2 years after its publication by the European organization so that a decision can be taken on its status at the end of its three-year life. The commencement of the review period will be notified by an announcement in *BSI News*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into a European Standard, to extend the life of the prestandard or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee B/516 at BSI 389 Chiswick High Road, London W4 4AL giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the ENV title page, pages 2 to 12 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

