

Testing aggregates —

Part 120: Method for testing and classifying drying shrinkage of aggregates in concrete

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- Association of Consulting Engineers
- Association of Consulting Scientists
- Association of Lightweight Aggregate Manufacturers
- Brick Development Association
- British Aggregate Construction Materials Industries
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- Mortar Producers' Association Limited
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- Society of Chemical Industry

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Foreword

This Part of BS 812, prepared under the direction of the Cement, Gypsum, Aggregates and Quarry Products Standards Policy Committee, forms part of a general revision that is being made of the 1975 edition of BS 812. As each of the tests, or collection of related tests, is prepared, it is intended to issue it as a separate Part or Section of BS 812.

This Part contains the test procedure for the determination of the drying shrinkage of aggregates. The test was not included in previous editions of BS 812 but has now been included because there is a need to identify “shrinkable aggregates”. The increased shrinkage of concrete made with such aggregates may cause problems in structures whose design is based on the properties of “normal” concrete. Concrete made with such aggregates may also be less durable than equivalent “normal” concrete.

The test has its origins in a method developed at the Building Research Establishment and which is described in BRE Digest 35 (1968 edition). The present test offers considerable advantages as it is a simpler procedure and the results are available in much less time. The precision of both the original BRE Digest 35 test and the procedure described here have been determined. They are not judged good enough to justify the four classifications suggested in BRE Digest 35 and a simpler classification into two categories is therefore included in appendix A. It is important to note that the results of the procedure described here differ from those produced by the Digest 35 method and the classifications in Digest 35 should not be applied to the results of the Part 120 procedure. It is intended that Digest 35 will be withdrawn and a new BRE Digest on the drying shrinkage of aggregates issued taking account of the BS 812-120 method and classification and suggesting a method for testing aggregates which fall outside the scope of BS 812-120.

It is intended that BS 812 test methods should be called up by other British Standards as the basis for compliance. Nevertheless, it is *not* intended that all aggregates should be subjected regularly to all the listed tests. Requirements in other British Standard specifications will refer only to the relevant test methods. Some of the tests in other Parts of BS 812 are of limited application, and advice on the use of simple tests is given, for example, when they can be used for a preliminary sorting of aggregates to see whether more expensive testing is justified.

Reference should be made to BS 812-101:1984 for general guidance on testing aggregates, precision of test methods and variance arising from sampling errors. A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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

Summary of pages

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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.