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# General methods of chemical analysis —

## Part 2: Method for determination of silicon content (reduced molybdosilicate spectrophotometric method)

[ISO title: General method for determination of silicon content —  
Reduced molybdosilicate spectrophotometric method]

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# Cooperating organizations

The Chemical Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following:

- Association of Fatty Acid Distillers
- British Tar Industry Association
- Chemical Industries Association\*
- Consumer Standards Advisory Committee of BSI
- Department of Health and Social Security
- Department of Industry (Laboratory of the Government Chemist)
- Fertiliser Manufacturers' Association Ltd.
- Ministry of Agriculture, Fisheries and Food
- Ministry of Defence\*
- National Sulphuric Acid Association
- Paintmakers Association of Great Britain Ltd.
- Royal Institute of Public Health and Hygiene
- Royal Society of Chemistry
- Soap and Detergent Industry Association
- Standardization of Tar Products Tests Committee

The organizations marked with an asterisk in the above list, together with coopted members nominated by other BSI committees, were directly represented on the Technical Committee entrusted with the preparation of this British Standard.

This British Standard, having been prepared under the direction of the Chemical Standards Committee, was published under the authority of the Board of BSI and comes into effect on 31 January 1983

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The following BSI references relate to the work on this standard:  
Committee reference CIC/-  
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## Amendments issued since publication

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## National foreword

This Part of BS 6337 is the second of a series of general methods of chemical analysis prepared under the direction of the Chemical Standards Committee. It is identical with ISO 6382:1981 “*General method for determination of silicon content — Reduced molybdosilicate spectrophotometric method*”, published by the International Organization for Standardization (ISO).

For some years, the UK has participated in the work of Subcommittee 1 — General methods, of Technical Committee 47 — Chemistry of ISO. As international agreement is reached on the methods, it is proposed to publish them as Parts of this British Standard. The work of Subcommittee 1 on such general methods was motivated by the existence of a multiplicity of methods for the same determination, all differing to various degrees, that had been prepared by the ISO/TC 47 sub-committees, etc., responsible for particular chemical products or groups of products. For this historical reason, unnecessary proliferation of different reagents, apparatus and procedures had been developed.

These general methods are intended to reduce such proliferation, as far as is possible. They assume that a suitable test solution of a product to be analyzed has been prepared, by a method established in the standard relating to the product concerned, which also gives other specific details such as relevant interfering species and how to overcome them, and how the results should be expressed. It is hoped and expected that any committees that wish to revise existing, or prepare new, standards involving an analysis corresponding to the general methods, will do so by no more than cross-references to the appropriate parts of this British Standard.

Because a general method cannot take into account the properties of all the products to which it may be applied, it should indicate what characteristics the test solution should have in order that the method can be applied to it. The compiler of the product standard should indicate how the test portion is to be treated in order to obtain a test solution with the required characteristics.

Moreover, while a general method should include a list of known interferences, together with suggestions by which they can be overcome, the product standard should indicate what interferences might be expected in a particular product and what action should be taken if they are present so that the general method can be applied to the product concerned.

Because no product standard can be expected to foresee all eventualities, the user of the product standard should check in all cases that the general method will be applicable to a particular material.

**Terminology and conventions.** The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

**Cross-references.** The corresponding British Standards for the ISO publications relating to determination of silicon content by reduced molybdosilicate photometry, which are listed in Annex B for information only, are as follows.

| International Standard | Corresponding British Standard                                                                                                                      |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO 984:1974           | BS 6075 <i>Methods of sampling and test for sodium hydroxide for industrial use</i><br>Part 4 <i>Determination of silica content</i><br>(Identical) |

| International Standard | Corresponding British Standard                                                                                                                                            |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO 995:1975           | BS 5634 <i>Methods of test for potassium hydroxide</i><br>(Related)                                                                                                       |
| ISO 1232:1976          | BS 4140 <i>Methods of test for aluminium oxide</i><br>(Related)                                                                                                           |
| ISO 1620:1976          | BS 5050 <i>Methods of test for cryolite</i><br>(Related)                                                                                                                  |
| ISO 2369:1972          | BS 4993 <i>Methods of test for aluminium fluoride for industrial use</i><br>Part 3 <i>Determination of silica content</i><br>(Related)                                    |
| ISO 3361:1975          | BS 4258 <i>Methods of test for phosphoric acid (orthophosphoric acid) for industrial use</i><br>Part 5 <i>Determination of silica content</i><br>(Related)                |
| ISO 3540:1976          | BS 5072 <i>Methods of test for sodium fluoride for industrial use</i><br>Part 6 <i>Determination of silica content</i><br>(Identical)                                     |
| ISO 3701:1976          | BS 5365 <i>Methods of sampling and test for anhydrous hydrogen fluoride for industrial use</i><br>Part 4 <i>Determination of hexafluorosilicic content</i><br>(Identical) |
| ISO 5438 <sup>a</sup>  | BS 5659 <i>Methods of test for acid-grade fluorspar</i><br>Part 8 <sup>a</sup> <i>Determination of silica content</i>                                                     |

<sup>a</sup> In course of preparation.

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

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 6, an inside back cover 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.