

Methods of test for

Aluminium fluoride for industrial use —

Part 5: Determination of moisture content (Karl Fischer method)

Methods of test for

Cryolite —

Part 9: Determination of moisture content (Karl Fischer method)

[ISO title: Cryolite, natural and artificial, and aluminium fluoride for industrial use — Determination of water content — Electrometric method]

UDC 661.862.36:543.712

Cooperating organizations

The Chemicals Standards Committee, under whose direction these British Standards were prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Fatty Acid Distillers
- British Tar Industry Association
- Chemical Industries Association*
- Chemical Society, Analytical Division*
- Consumer Standards Advisory Committee of BSI
- Department of Health and Social Security
- Department of Industry (Laboratory of the Government Chemist)
- Fertiliser Manufacturers' Association Ltd.
- Hydrocarbon Solvents Association
- 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
- Soap and Detergent Industry Association
- Standardization of Tar Products Tests Committee

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of these British Standards:

- Aluminium Federation
- British Ceramic Research Association
- Royal Institute of Chemistry

These British Standards, having been prepared under the direction of the Chemicals Standards Committee, were published under the authority of the Executive Board and come into effect on 31 December 1980

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The following BSI references relate to the work on these standards:
Committee reference CIC/24
Draft for comment 74/54499 DC

ISBN 0 580 11445 7

Amendments issued since publication

Amd. No.	Date of issue	Comments

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National foreword

These British Standards have been prepared under the direction of the Chemicals Standards Committee in order to provide methods for the analysis of aluminium fluoride and cryolite for industrial use. For some years the United Kingdom has participated in the work of preparing methods of test applicable to these materials, organized by Sub-committee 7 (formerly WG 8), Alumina and related compounds, of Technical Committee 47, Chemistry, of the International Organization for Standardization (ISO). As international agreement is reached on the methods, it is proposed to publish them as Parts of these British Standards.

These Parts of BS 4993 and BS 5050 are identical with ISO 3392 “*Cryolite, natural and artificial, and aluminium fluoride for industrial use — Determination of water content — Electrometric method*”.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication, without deviation, as a British Standard. 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 throughout 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

International Standard	Corresponding British Standard
ISO 2925:1973	BS 4993 <i>Methods of test for aluminium fluoride for industrial use</i> Part 4:1980 <i>Preparation and storage of test samples</i> (Identical)

There is at present no British Standard identical with ISO 1619:1976, but clause 2.3 of BS 5050:1974 “*Methods of test for cryolite*”, covers the same ground as clause 3.3 of ISO 1619 (referred to in clause 6.1 of these standards).

The corresponding clause numbers in ISO/R 760 or ISO 760 and BS 2511 are as follows.

BS 4993-5 or BS 5050-9	ISO/R 760 or ISO 760	BS 2511
4.3	4.3	2.3 3) i)
4.4	4.5	2.4 4)
	7.2.1	3.4.2
4.5	4.6	3.4.1
	4.7	3.4.1
	A.2	3.4.2
5.7	5.1.1.1	3.2 2)
5.9	5.1.1.3	3.2 1)
5.10	5.1.1.4 (magnetic stirrer)	—
5.11	5.1.1.7	3.2.5
6.2	7	3
6.3	7	3.4.2

The other International Standards listed in the Annex are for information only. Corresponding British Standards are listed below.

International Standard	Corresponding British Standard		Title
	BS 4993 <i>Methods of test for aluminium fluoride for industrial use</i>	BS 5050:1974 <i>Methods of test for cryolite</i>	
ISO 1620:1976	—	Clause 3	<i>Determination of silica content</i> (Related)
ISO 1693:1976	—	Clause 4	<i>Determination of fluorine content</i> (Related)
ISO 1694:1976	—	Clause 5	<i>Determination of iron content</i> (Related)
ISO 2362:1972	Part 1	—	<i>Determination of fluorine content</i> (Related)
ISO 2366:1974	Part 1	Clause 6	<i>Determination of sodium content</i> (Related)
ISO 2367:1972	—	Clause 7	<i>Determination of aluminium content (gravimetric method)</i> (Related)
ISO 2368:1972	Part 2	—	<i>Determination of iron content</i> (Related)
ISO 2369:1972	Part 3	—	<i>Determination of silica content</i> (Related)
ISO 2380:1973	—	Clause 8	<i>Determination of aluminium content (atomic absorption method)</i> (Related)
ISO 3391:1976	—	BS 5050:1980 Part 8	<i>Determination of calcium content</i> (Identical)
ISO 3393:1976	Part 6	Part 10	<i>Gravimetric determination of moisture content</i> (Identical)
ISO 4277:1977	—	—	<i>Not published (ISO 4277 disapproved by United Kingdom)</i>
ISO 4279:1977	Part 7	—	<i>Determination of sulphate content</i> (Identical)
ISO 4280:1977	Part 8	Part 11	<i>Determination of sulphate content</i> (Identical)