

Specification for

Ingot lead for radiation shielding

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Co-operating organizations

The Non-ferrous Metals Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments, and scientific and industrial organizations:

Aluminium Federation	Institution of Mining and Metallurgy
Association of Bronze and Brass Founders	Institution of Production Engineers
Association of Consulting Engineers	Institution of Structural Engineers
Board of Trade	Lead Development Association*
British Bronze and Brass Ingot Manufacturers' Association	Light Metal Founders' Association
British Electrical and Allied Manufacturers' Association	London Metal Exchange
British Lead Manufacturers' Association*	Magnesium Industry Council
British Non-ferrous Metals Federation	Ministry of Aviation
British Non-ferrous Metals Research Association	Ministry of Defence, Army Department*
Copper Development Association	Ministry of Defence, Navy Department
Crown Agents for Oversea Governments and Administrations	National Brassfoundry Association
Electric Cable Makers Confederation*	Non-ferrous Metal Stockists
High Conductivity Copper Association	Post Office*
Institute of British Foundrymen	Royal Institute of British Architects
Institute of Metals	Society of British Aerospace Companies Ltd.
Institution of Mechanical Engineers (Automobile Division)	Society of Motor Manufacturers and Traders Ltd.
	Tin Research Institute
	Zinc Development Association
	Individual manufacturers

The Government department and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Accumulator Makers Association	United Kingdom Atomic Energy Authority
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This British Standard, having been approved by the Non-ferrous Metals Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 12 July 1965

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The following BSI references relate to the work on this standard:
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Amendments issued since publication

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Foreword

This standard makes reference to the following British Standard:

BS 3908, *Methods for the sampling and analysis of lead and lead alloy — Part 1: Sampling of ingot lead, lead alloy ingots, sheet, pipe and cable sheathing alloys*.

This British Standard is one of a series of standards for non-ferrous metals, the publication of which has been authorized by the Non-Ferrous Metals Industry Standards Committee.

The request for the preparation of this standard covering the composition of lead used for radiation shielding came from several branches of the industry, and the standard is based on a draft prepared by the Lead Development Association.

The three grades of lead specified are considered to be sufficient for most radiation shielding requirements, and detailed information as to the use of each grade is given in an Appendix.

Very occasionally installations require shields with extremely low background radiation. Instruments of high sensitivity must be screened and for this purpose “low background lead” (sometimes known as “old lead” or “aged lead”) may be used. In this instance chemical composition is not important, and lead which has been exposed to light and air for 50 years is usually satisfactory; it is usually less contaminated than lead which has been used underground. This material is not specified in this standard. Its only requirement is that of having a low background radiation count and the magnitude of this is a matter of agreement between supplier and purchaser.

Although an indication of the uses of the three grades specified is given in the Appendix, it is recommended that when ordering the purchaser should advise the supplier of the end use for which the material is intended.

The wording and general arrangement of this standard are in line as far as possible with other standards for non-ferrous metals which include a number of alloys.

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.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, 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.