

Specification for

Wrought aluminium for electrical purposes —

Strip with drawn or rolled edges

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

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:

British Railways Board	Institute of Iron and Steel Wire Manufacturers
Electricity Supply Industry in England and Wales	Institute of Sheet Metal Engineering

This British Standard, having been approved by the Non-ferrous Metals Industry Standards Committee, was published under the authority of the Executive Board on 28 January 1970

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Foreword

This standard makes reference to the following British Standards:

BS 18, *Methods for the tensile testing of metals.*

BS 18-1, *Non-ferrous metals.*

BS 1499, *Sampling non-ferrous metals.*

BS 1728, *Methods for the analysis of aluminium and aluminium alloys.*

BS 3239, *Determination of resistivity of metallic electrical conductor materials.*

This British Standard was first published in 1957 under the authority of the Non-ferrous Metals Industry Standards Committee and at the request of the Aluminium Industry in view of the increasing use of aluminium for electrical conductors of many types. It refers to strip used for electrical conductors such as windings for rotating electrical machines or transformers, and is suitable for controlling the quality of electrical purity aluminium strip supplied for general electrical components made to other relevant British Standards.

In this edition all dimensions are shown in metric units which are not exact equivalents of the original values.

The three conditions previously covered have been retained but new designations have been introduced based on the system under consideration by ISO/TC 79 “*Light metals and their alloys*”. The new designations bear the following relationship to the superseded designations.

<i>New designation</i>	<i>Superseded designation</i>
O	O
H4	½H
H8	H

All stresses are quoted in terms of the hectobar (hbar)¹.

This standard is one of a series of standards for wrought aluminium and aluminium alloys for electrical purposes.

Other standards in this series are:

BS 2627, *Wrought aluminium for electrical purposes. Wire.*

BS 2898, *Wrought aluminium and aluminium alloys for electrical purposes. Bars, extruded round tube and sections.*

BS 3988, *Wrought aluminium for electrical purposes. Solid conductors for insulated cables.*

As a major step towards alignment of aluminium and aluminium alloy compositions on an international basis, a substantial number of countries have agreed to adopt a 4-digit classification for alloy composition designation. This system is administered by the Aluminum Association Inc., who issue the “Registration Record of International Alloy Designations and Chemical Composition Limits for Wrought Aluminum Alloys”.

By amendment, it has been decided to introduce this system into the British Standards concerned with these types of material in place of the material designations formerly used. The details of the system are given in Appendix B.

The temper designations and associated mechanical property requirements remain unaltered for the present and therefore may not necessarily align precisely with those in the standards of other countries.

Material 1350 therefore replaces material D1E. Minor compositional changes have been made.

¹) 1 hbar = 10 MN/m² = 10 N/mm².