



BSI Standards Publication

## Aerospace series –

Nuts, hexagonal, ordinary and thin, Unified threads  
(below .250 inch), brass, tin plated – Specification

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# Foreword

## Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 November 2019. It was prepared by Technical Committee ACE/12, *Aerospace fasteners and fastening systems*. A list of organizations represented on this Committee can be obtained on request to its secretary.

## Supersession

BS 3A 210:2019 supersedes BS 2A 210:1962, which is withdrawn.

## Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- Normative references have been updated;
- [Tables 1](#) and [2](#) have been restyled;
- [Figures 1](#) and [2](#) have been redrawn;
- [Subclause 5.2](#) has been altered and [subclause 5.3](#) added; and
- clauses have been renumbered in line with current conventions and updated.

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## Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

## Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

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## 1 Scope

This British Standard specifies the materials, dimensions, finish and inspection requirements for tin-plated brass nuts with Unified hexagons and Unified threads for aircraft. It makes provision for ranges of ordinary and thin nuts.

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## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 1872, *Specification for electroplated coatings of tin*

BS 4A 100, *Aerospace series — Specification for general requirements for bolts and free machining nuts of tensile strength not exceeding 1249 MPa*

BS EN 12163, *Copper and copper alloys — Rod for general purposes*

BS EN 12164, *Copper and copper alloys — Rod for free machining purposes*

BS EN 12167, *Copper and copper alloys — Profiles and bars for general purpose*

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## 3 Terms and definitions

No terms and definitions are listed in this document.

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## 4 General requirements

The nuts shall conform to the relevant requirements of BS 4A 100, in respect of manufacture, screw threads, identification and marking.

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## 5 Material and manufacture

- 5.1 The nuts shall be machined from free machining leaded brass bar in accordance with BS EN 12163, BS EN 12164 or BS EN 12167 alloy CW614N-R430.

*NOTE* BS 249 and BS 1374 have been withdrawn but are included here for reference only for nuts machined from free machining leaded brass bar, alloy CZ121 Pb3-M, which might still be in service.

- 5.2 To maintain visual identification of a nut's thread end with the non-countersunk face, deburring using a suitable arrelling method shall be the acceptable method to keep metal removal to a minimum. The sharp thread break-out shall not be deburred using hand or machine tools which use a cutting blade.
- 5.3 The nuts shall be configured in accordance with:
- [Figure 1](#), for Ordinary Nuts; or
  - [Figure 2](#), for Thin Nuts.