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Interested committees:

Title: Draft BS A 103, AEROSPACE SERIES Nuts, hexagonal, ordinary, thin, slotted and castle, unified threads, alloy steel, cadmium plated # Specification Classification Rm # 145 600 lbf/in² (1 004 MPa) in mating male fastener at ambient temperature | + 190°C

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Introduction

Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international and European standards, comments will be reviewed by the relevant UK national committee before submitting the consensus UK vote and comments. If the draft standard is approved, it is usual for the resulting published standard to be adopted as a British Standard.

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BS A 103:2025

AEROSPACE SERIES

Nuts, hexagonal, ordinary, thin, slotted and castle, unified threads, alloy steel, cadmium plated – Specification

Classification $R_m \geq 145\ 600\ \text{lbf/in}^2$ (1 004 MPa) in mating male fastener at ambient temperature | +190°C

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Persons commenting on this draft are advised not to comment on matters of typography and layout.

Please note the layout of tables and figures in this standard will be consistent with all other typeset standards.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on XX XXXXXX 202X. 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 the committee manager.

Supersession

This British Standard supersedes BS 3A 103:1962, which is withdrawn.

Information about this document

The nuts specified in this British Standard are suitable for assembly on high tensile steel bolts conforming to BS A 102. The tensile strength of the material specified for the nuts increases with thread size, but throughout the whole range of sizes, static tensile tests on assemblies of bolts, together with ordinary nuts, have confirmed the nuts do not fail until the tensile stress in the bolt exceeds 145 600 lbf/in² (1 004 MPa). This is measured on the basic effective diameter of the bolt thread. Thin and slotted nuts are proportionately weaker and designers need to make allowance for this.

When nuts secured by means of split cotter pins are required to develop the full strength of the bolt in tension, castle nuts need to be used instead of slotted nuts.

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The provisions of this document 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”).

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1 Scope

This British Standard specifies the materials, dimensions, protective finish and inspection requirements for alloy steel nuts with Unified hexagons and Unified threads for aircraft. It makes provision for ordinary, thin, slotted and castle nuts in both right and left hand thread forms.