

BS 7419:2012



BSI Standards Publication

Specification for holding down bolts

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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 31 December 2012. It was prepared by Technical Committee FME/9, *Fasteners*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This British Standard supersedes BS 7419:1991, which is withdrawn.

Information about this document

The fasteners in this British Standard are used in the steel construction industry, where their use might be subject to the requirements of the Construction Products Regulation. BS EN 15048 has been written to provide the harmonization requirements for non-preloaded structural fasteners, and gives details of CE marking. Assemblies produced in accordance with BS 7419 can be expected to meet the mechanical property requirements of BS EN 15048.

Requirements in this standard are drafted in accordance with *The BSI guide to standardization – Section 2: Rules for the structure, drafting and presentation of British Standards*, subclause 11.3.1, which states, “Requirements should be expressed using wording such as: ‘When tested as described in Annex A, the product shall ...’”. This means that only those products that are capable of passing the specified test will be deemed to conform to this standard.

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.

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.

1 Scope

This British Standard specifies the characteristics of holding down bolts with threads from M16 up to and including M64 of product grade C for use in connecting steel structures to their foundations and in similar applications.

Bolts with square heads and square necks are specified. Two possible forms of square neck are covered.

Bolts with hexagon heads are also specified.

Other forms of holding down bolts are not covered.

Holding down bolts are used with hexagon nuts in accordance with BS EN ISO 4032:2001 or BS EN ISO 4034:2001 and may, be used with washers in accordance with BS EN ISO 7091:2000, or alternatively, washers in accordance with BS 4320:1968, Form G may be specified.

2 Normative references

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

BS 3643-1:2007, *ISO metric screw threads – Part 1: Principles and basic data*

BS 3643-2:2007, *ISO metric screw threads – Part 2: Specification for selected limits of size.*

BS 4320:1968, *Metal Washers for general engineering purposes – Metric series*

BS 7371-8:2011, *Coatings on metal fasteners – Part 8: Specification for sherardized coatings*

BS EN 15048-2:2007, *Non-preloaded structural bolting assemblies – Part 2: Suitability test*

BS EN ISO 898-1:2009, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread*

BS EN ISO 898-2:2012, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 2: Nuts with specified property classes – Coarse thread and fine pitch thread*

BS EN ISO 3269:2001, *Fasteners – Acceptance inspection*

BS EN ISO 4032:2001, *Hexagon nuts, style 1 – Product grades A and B*

BS EN ISO 4034:2001, *Hexagon nuts – Product grade C*

BS EN ISO 4042:2000, *Fasteners – Electroplated coatings*

BS EN ISO 4759-1:2001, *Tolerances for fasteners – Part 1: Bolts, screws, studs and nuts – Product grades A, B and C*

BS EN ISO 7091:2000, *Plain washers – Normal series – Product Grade C*

BS EN ISO 10684:2004, *Fasteners – Hot dip galvanized coatings*

BS ISO 965-5:1998, *ISO General purpose metric screw threads – Tolerances – Part 5: Limits of sizes for internal screw threads to mate with hot-dip galvanized external screw threads with maximum size of tolerance position h before galvanizing*

BS ISO 8992:2005, *Fasteners – General requirements for bolts, screws, studs and nuts*