

Fasteners — Surface discontinuities — Nuts

The European Standard EN 493:1992 has the status of a
British Standard

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National foreword

This British Standard has been prepared under the direction of the General Mechanical Engineering Standards Policy Committee and is the English language version of EN 493:1992 *Fasteners — Surface discontinuities — Nuts*, published by the European Committee for Standardization (CEN). EN 493:1992 was produced as a result of international discussion in which the United Kingdom took an active part.

BS EN 493:1992 in conjunction with BS EN 26157-1:1992 and BS EN 26157-3:1992 form a series of standards that cover the surface discontinuities of fasteners.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 16, 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.

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English version

Fasteners — Surface discontinuities — Nuts

Eléments de fixation — Défauts de surface —
Ecrous

Verbindungselemente — Oberflächenfehler —
Muttern

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CEN

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Foreword

This European Standard has been drawn up by Technical Committee CEN/TC 185 “Threaded and non-threaded mechanical fasteners and accessories” and was submitted to the Unique Acceptance Procedure.

National standards identical to this European Standards shall be published at the latest by 1992-11-30 and conflicting national standards shall be withdrawn at the latest by 1992-11-30.

In accordance with the CEN/CENELEC Common Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

1.1 This European Standard establishes limits for various types of surface discontinuities on nuts with:

- nominal thread diameters from 5 up to and including 39 mm;
- product grade A and B;
- all property classes according to EN 20898-2, ISO 898-6 and ISO 2320;

unless otherwise specified in product standards or by the purchaser.

1.2 In case of the permissible limits for surface discontinuities indicated in clause 3, properties according to EN 20898-2, ISO 898-6 and ISO 2320 as appropriate must be satisfied. In addition, the dimensional requirements of the appropriate product standard must be satisfied.

Notes:

- The figures in clause 3 are examples only. They also apply correspondingly to other types of nuts.
- The individual figures show the surface discontinuities exaggerated in some cases for clarity.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 468, *Surface roughness — Parameters, their values and general rules for specifying requirements*.

EN 20898-2, *Mechanical properties of fasteners — Part 2: Nuts with specified proof load values*.

ISO 898-6, *Mechanical properties of fasteners — Part 6: Nuts with specified proof load values — Fine pitch thread*.

ISO 2320, *Prevailing torque type steel hexagon nuts — Mechanical and performance properties*.

ISO 3269, *Fasteners — Acceptance inspection*.

3 Types, causes, appearance and limits of surface discontinuities

3.1 Cracks

A crack is a clean (crystalline) fracture passing through or across the grain boundaries and may possibly follow inclusions of foreign elements. Cracks are normally caused by overstressing the metal during forging or other forming operations, or during heat treatment or may have been present in the raw material.