AS/NZS 4291.2:2016
ISO 898-2:2012

AS/NZS 4291.2:2016

Australian/New Zealand Standard™

Mechanical properties of fasteners made of carbon steel and alloy steel

Part 2: Nuts with specified property classes—Coarse thread and fine pitch thread

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Australasian Corrosion Association
Australian Chamber of Commerce and Industry
Australian Engineered Fasteners and Anchors Council
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Australian/New Zealand Standard™

Mechanical properties of fasteners made of carbon steel and alloy steel

Part 2: Nuts with specified property classes—Coarse thread and fine pitch thread

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-029, Fasteners, to supersede AS/NZS 4291.2:1995, *Mechanical properties of fasteners*, Part 2: *Nuts with specified proof load values—Coarse thread*.

The objective of this Standard is to provide manufacturers and users of threaded fasteners with the material requirements and mechanical properties for carbon steel and alloy steel nuts with specified property classes—coarse thread and fine pitch thread.

This Standard is identical with, and has been reproduced from 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.*

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this part of ISO 898' should read 'this Australian/New Zealand Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

None of the normative references in the source document have been adopted as Australian or Australian/New Zealand Standards.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

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Part 2:
Nuts with specified property classes—Coarse thread and fine pitch thread

1 Scope

This part of ISO 898 specifies mechanical and physical properties of nuts with coarse thread and fine pitch thread made of carbon steel and alloy steel when tested at an ambient temperature range of 10 °C to 35 °C.

Nuts conforming to the requirements of this part of ISO 898 are evaluated at that ambient temperature range. It is possible that they do not retain the specified mechanical and physical properties at elevated and/or lower temperatures.

NOTE 1 Nuts conforming to the requirements of this part of ISO 898 have been used in applications ranging from –50 °C to +150 °C. It is the responsibility of users to consult an experienced fastener materials expert for temperatures outside the range of –50 °C to +150 °C and up to a maximum temperature of +300°C to determine appropriate choices for a given application.

NOTE 2 Information for the selection and application of steels for use at lower and elevated temperatures is given for instance in EN 10269, ASTM F2281 and in ASTM A320/A320M.

This part of ISO 898 is applicable to nuts:

a) made of carbon steel or alloy steel;

b) with coarse thread M5 ≤ D ≤ M39, and fine pitch thread M8×1 ≤ D ≤ M39×3;

c) with triangular ISO metric thread according to ISO 68-1;

d) with diameter/pitch combinations according to ISO 261 and ISO 262;

e) with specified property classes, including proof load;

f) with different nut styles: thin nuts, regular nuts and high nuts;

g) with minimum height $m \geq 0{,}5D$;

h) with a minimum outside diameter or width across flats $s \geq 1{,}45D$ (see Annex A);

i) able to mate with bolts, screws and studs with property classes according to ISO 898-1.

For hot dip galvanized nuts, see ISO 10684.

This part of ISO 898 does not specify requirements for properties such as:

— prevailing torque properties (see ISO 2320);

— torque/clamp force properties (see ISO 16047 for test method);

— weldability;

— corrosion resistance.