AS 1237.2:2016
ISO 4759-3:2016

AS 1237.2:2016

Australian STANDARD

Tolerances for fasteners

Part 2: Washers for bolts, screws and nuts—Product grades A, C and F

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- Association of Accredited Certification Bodies
- Association of Wall and Ceiling Industries of Australia and New Zealand
- Australasian Corrosion Association
- Australian Chamber of Commerce and Industry
- Australian Engineered Fasteners and Anchors Council
- Australian Industry Group
- Australian Steel Institute
- Austroads
- Bureau of Steel Manufacturers of Australia
- CSIRO
- Galvanizers Association of Australia
- Materials Australia
- National Association of Steel-Framed Housing
- National Association of Testing Authorities, Australia
- Society of Automotive Engineers—Australasia
- Swinburne University of Technology

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME-029, Fasteners, to supersede AS 1237.2—2002. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian rather than an Australian/New Zealand Standard.

The objective of this Standard is to establish a selection of tolerances for use in the preparation of ISO product standards for punched plain washers of product grades A and C, for use with bolts, screws and nuts of nominal thread diameters of from 1 mm to 150 mm inclusive.

This Standard is identical with, and has been reproduced from ISO 4759-3:2016, *Tolerances for fasteners*, Part 3: *Washers for bolts, screws and nuts—Product grades A, C and F*.

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

(a) In the source text 'this part of ISO 4759' should read 'this Australian Standard'.

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

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.

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

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AUSTRALIAN STANDARD

Tolerances for fasteners

Part 2:
Washers for bolts, screws and nuts—Product grades A, C and F

1 Scope

This part of ISO 4759 specifies tolerances for flat washers of product grades A, C and F with nominal diameters of 1 mm to 150 mm inclusive, designed to be used in bolted joints in combination with bolts, screws, studs and nuts.

This part of ISO 4759 may be applied to non-flat washers however it does not include all the tolerances related to these washers.

It applies to non-captive and captive washers, and to standard and non-standard washers.

It does not apply to dynamic disc springs.

Washers of product grades F and A are intended to be used with bolts, screws, studs and nuts of product grades A and B; washers of product grade C are intended to be used with bolts, screws, studs and nuts of product grade C.

NOTE The product grade refers to a specific tolerance range related to dimensional and geometrical characteristics (product grade F for fine tolerances, product grade A for precise tolerances, product grade C for large tolerances).

Annex A presents tolerances taken from ISO 286-1 and ISO 286-2.

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.

ISO 1101, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

ISO 2692, *Geometrical product specifications (GPS) — Geometrical tolerancing — Maximum material requirement (MMR), least material requirement (LMR) and reciprocity requirement (RPR)*

3 Symbols

c_1 height of the internal chamfer, mm

c_2 height of the external chamfer, mm

d_1 clearance hole, mm

d_2 outside diameter, mm

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