

Australian Standard™

**Plain washers for metric bolts, screws
and nuts for general purposes**

Part 2: Tolerances

[ISO title: Tolerances for fasteners, Part 3: Plain washers for bolts,
screws and nuts—Product grades A and C]

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PREFACE

This Standard was prepared by the Standards Australia Committee ME-029, Fasteners to supersede AS 1237—1973, *Flat metal washers for general engineering purposes (metric series)*, in part.

The objective of this Standard is to provide manufacturers, suppliers and users with tolerances for the principle features of plain washers, product grades A and C for use with metric bolts, screws, studs and nuts with nominal thread diameters from 1 mm to 150 mm inclusive.

This Standard is identical with and has been reproduced from ISO 4759-3:2000, *Tolerances for fasteners, Part 3: Plain washers for bolts, screws and nuts—Product grades A and C*.

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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<i>Reference to International Standard</i>		<i>Australian Standard or Australian/New Zealand Standard</i>	
ISO		AS	
286	ISO system of limits and fits	1654	ISO system of limits and fits
286-1	Part 1: Bases of tolerances, deviations and fits	1654.1	Part 1: Bases of tolerances, deviations and fits
286-2	Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts	1654.2	Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts
1101	Geometrical Product Specifications (GPS)—Geometrical tolerancing—Tolerances of form, orientation, location and run-out	—	
2692	Technical drawings—Geometrical tolerancing—Maximum material principle	—	
4042	Fasteners—Electroplated coatings	—	

AUSTRALIAN STANDARD

Plain washers for metric bolts, screws and nuts for general purposes

Part 2:

Tolerances

1 Scope

This part of ISO 4759 establishes 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.

It is recommended that these tolerances also be used for non-standard washers.

NOTE The product grade refers to the quality of the product and to the size of the tolerances.

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

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 4759. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 4759 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1101—¹⁾, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out.*

ISO 2692:1988, *Technical drawings — Geometrical tolerancing — Maximum material principle.*

ISO 4042:1999, *Fasteners — Electroplated coatings.*

3 Tolerances

The tolerances for plain washers of product grades A and C are given in Table 1.

Unless otherwise specified, the tolerances specified in this part of ISO 4759 apply to washers prior to coating; see also ISO 4042.

1) To be published. (Revision of ISO 1101:1983)