
**Plain washers for tapping screw and washer
assemblies — Normal and large series —
Product grade A**

*Rondelles plates pour vis à tôle à rondelle incorporée — Séries normale
et large — Grade A*

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10669 was prepared by Technical Committee ISO/TC 2, *Fasteners*.

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Plain washers for tapping screw and washer assemblies — Normal and large series — Product grade A

1 Scope

This International Standard specifies the characteristics of plain steel washers of product grade A for tapping screw and washer assemblies in accordance with ISO 10510.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard 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 3269:—¹⁾, *Fasteners — Acceptance inspection*.

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

ISO 4759-3:—²⁾, *Tolerances for fasteners — Part 3: Plain washers for bolts, screws and nuts — Product grades A and C*.

ISO 6507-1:1997, *Metallic materials — Vickers hardness test — Part 1: Test method*.

ISO 10510:1999, *Tapping screw and washer assemblies with plain washers*.

¹⁾ To be published. (Revision of ISO 3269:1988)

²⁾ To be published. (Revision of ISO 4759-3:1991)

3 Classification

Washers of product grade A for tapping screw and washer assemblies are classified into two types:

- Type N: Normal series;
- Type L: Large series.

4 Dimensions

4.1 Type N, normal series

See Figure 1 and Table 1.

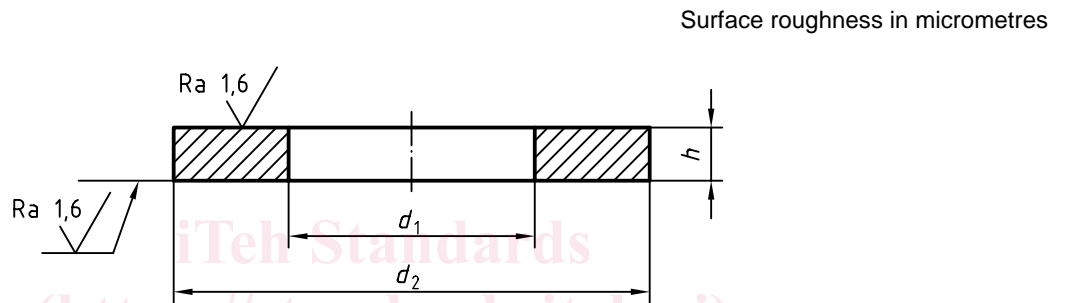


Figure 1

ISC Table 1:1999

<https://standards.iteh.ai/catalog/standards/iso/8472344b-40fc-4278-bdda-775a4e6fc> Dimensions in millimetres

Nominal size (Nominal thread diameter, d)	Clearance hole		Outside diameter		Thickness		
	nom. (min.)	d_1 max.	nom. (max.)	d_2 min.	nom.	h max.	min.
2,2	1,9	2	5	4,82	1	1,06	0,94
2,9	2,5	2,6	7	6,64	1	1,06	0,94
3,5	3	3,1	8	7,64	1	1,06	0,94
4,2	3,55	3,67	9	8,64	1	1,06	0,94
4,8	4	4,12	10	9,64	1	1,06	0,94
5,5	4,7	4,82	12	11,57	1,6	1,68	1,52
6,3	5,4	5,52	14	13,57	1,6	1,68	1,52
8	7,15	7,3	16	15,57	1,6	1,68	1,52
9,5	8,8	8,95	20	19,48	2	2,09	1,91