

Product grade C washers
designed for use with hexagon head bolts and nuts

DIN
126

Scheiben; Produktklasse C, vorzugsweise für Sechskantschrauben und -muttern

Supersedes
May 1968 edition.

In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

Dimensions in mm

1 Scope and field of application

This standard specifies requirements for product grade C washers. The preferred application of these washers is in product grade C hexagon head bolt/hexagon nut assemblies, with widths across flats as specified in ISO 272.

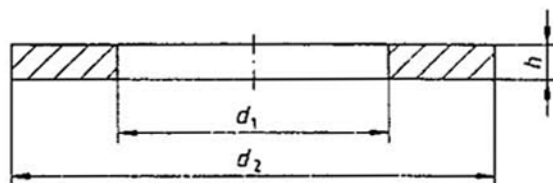
2 Dimensions

Table 1.

Nominal size	For thread size M	Clearance hole diameter, d_1		Outside diameter, d_2		Thickness, h			Mass (7,85 kg/dm ³) per 1000 units, in kg, \approx
		min. = nominal size	max.	max. = nominal size	min.	Nominal size	max	min.	
5,5	5	5,5	5,8	10	9,1	1	1,2	0,8	0,430
6,6	6	6,6	6,96	12	10,9	1,6	1,9	1,3	0,991
7,6	7	7,6	7,96	14	12,9	1,6	1,9	1,3	1,36
9	8	9	9,36	16	14,9	1,6	1,9	1,3	1,73
11	10	11	11,43	20	18,7	2	2,3	1,7	3,44
13,5	12	13,5	13,93	24	22,7	2,5	2,8	2,2	6,07
15,5	14	15,5	15,93	28	26,7	2,5	2,8	2,2	8,38
17,5	16	17,5	17,93	30	28,7	3	3,6	2,4	11,0
20	18	20	20,52	34	32,4	3	3,6	2,4	14,0
22	20	22	22,52	37	35,4	3	3,6	2,4	16,4
24	22	24	24,52	39	37,4	3	3,6	2,4	17,5
26	24	26	26,52	44	42,4	4	4,6	3,4	31,1
30	27	30	30,52	50	48,4	4	4,6	3,4	39,5
33	30	33	33,62	56	54,1	4	4,6	3,4	50,5
36	33	36	37	60	58,1	5	6	4	71,0
39	36	39	40	66	64,1	5	6	4	87,4
42	39	42	43	72	70,1	6	7	5	127
45	42	45	46	78	76,1	7	8,2	5,8	175
48	45	48	49	85	82,8	7	8,2	5,8	212
52	48	52	53,2	92	89,8	8	9,2	6,8	284
56	52	56	57,2	98	95,8	8	9,2	6,8	319
62	56	62	63,2	105	102,8	9	10,2	7,8	398
66	60	66	67,2	110	107,8	9	10,2	7,8	430
70	64	70	71,2	115	112,8	9	10,2	7,8	462
78	72	78	79,2	125	122,5	10	11,2	8,8	588
86	80	86	87,4	140	137,5	12	13,6	10,4	903
96	90	96	97,4	160	157,5	12	13,6	10,4	1210
107	100	107	108,4	175	172,5	14	15,6	12,4	1660
117	110	117	118,4	185	182,1	14	15,6	12,4	1770
127	120	127	128,6	210	207,1	16	17,6	14,4	2760
132	125	132	133,6	220	217,1	16	17,6	14,4	3060
137	130	137	138,6	220	217,1	16	17,6	14,4	2920
147	140	147	148,6	240	237,1	18	19,6	17,4	3990
158	150	158	159,6	250	247,1	18	19,6	17,4	4170
168	160	168	169,6	250	247,1	18	19,6	17,4	3800

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3 Technical delivery conditions

Table 2.

Material		Steel
Mechanical properties	Hardness class	HV 100
	Hardness HV 10	100 to 250
Limit deviations and geometrical tolerances	Product grade	C
	As specified in	DIN 522.
Surface finish	Bright. DIN 522 shall apply with regard to surface roughness. DIN 267 Part 9 shall apply with regard to electroplating. DIN 267 Part 10 shall apply with regard to hot-dip galvanizing, any other type of surface protection being subject to agreement.	
Acceptance inspection	DIN 522 shall apply with regard to acceptance inspection.	

4 Designation

Designation of a washer of nominal size 9 and hardness class 100 HV¹⁾:

Washer DIN 126 – 9 – 100 HV

The DIN 4000-3-1 tabular layout of article characteristics shall apply for washers complying with this standard.

Standards referred to

DIN 267 Part 9	Fasteners; technical delivery conditions; electroplated components
DIN 267 Part 10	Fasteners; technical delivery conditions; hot-dip galvanized components
DIN 522	Metal washers; technical delivery conditions
DIN 4000 Part 3	Tabular layout of article characteristics for washers and rings
ISO 272	Fasteners; hexagon products; widths across flats

Previous editions

DIN 126: 02.21, 03.23, 04.27, 10.36, 05.43, 05.68.

Amendments

The following amendments have been made to the May 1968 edition.

- The outside diameters for nominal sizes 6,6, 9 and 11 have been amended.
- Nominal sizes (clearance hole diameters) 14, 16 and 18 have been replaced by 13,5, 15,5 and 17,5.
- Nominal size 168 has been included.
- Limits of size calculated from the tolerances have been included.
- Hardness class 100 HV has been included.
- The technical delivery conditions have been revised.
- The standard has been editorially revised.

Explanatory notes

The clearance hole diameters and outside diameters for washer sizes up to 39 have been harmonized with the specifications given in the 1983 edition of ISO 7091*) where such were available. At present, this ISO Standard or its revised version (currently being prepared) cannot be adopted as a DIN Standard since, in Germany, a considerably greater number of sizes is required than specified in the ISO Standard.

International Patent Classification

F16 B 43/00

*) Obtainable from *Beuth Verlag GmbH (Auslandsnormenverkauf)*, Burggrafenstraße 6, D-1000 Berlin 30.

¹⁾ This hardness class shall also be used where no material or only the symbol 'St' is specified in existing documentation.