

ISO 7093-2

Plain washers - Large series - Product grade C



Standard	ISO 7093-2		
Product Type	This part of ISO 7093 specifies the characteristics of large-series, product-grade-C plain washers in the 100 HV hardness class, of nominal sizes (nominal thread diameters) ranging from 3 mm to 36 mm inclusive. Washers conforming to this part of ISO 7093 are intended for use in cases where soft material pieces are to be clamped or where there are large clearance holes in the workpiece. Nevertheless, in the latter case, the suitability of the washer thickness should be checked. Washers of hardness class 100 HV are suitable for: - hexagon bolts and screws of product grade C in property classes up to and including 6.8; - hexagon nuts of product grade C in property classes up to and including 6; - case-hardened thread rolling screws. If dimensions other than those listed in this part of ISO 7093 are required, they should be selected from those given in ISO 887.		
Material	Stainless Steel, Carbon Steel		
Property Class	100 HV		
Surface Finish	Passivated, Plain, Zinc Plated, Hot Dip Galvanized, Dacromet		
Size Range	M3 - M36	Thread	ISO metric coarse pitch

BASIS OF SPECIFICATION		WHICH STANDARD GOVERNS WHAT
Dimensions to	ISO 7093-2:2000	
Carbon steel / Alloy steel mechanical properties to	ISO 898-3:2018	
Stainless steel mechanical properties to	ISO 3506-7:2024	
Product grade	C	

HARDNESS REQUIREMENTS		REQUIRED VALUES PER ISO 7093-2	
Class	Hardness	Governing property	Source
100 HV	min. 100 HV	Hardness class (upper limit per standard table)	ISO 7093-2

DIMENSIONAL DATA - SIZES WE SUPPLY

ALL DIMENSIONS PER THE STANDARD

d	d1	d1 (max)	d2	d2 (min)	h	h (max)	h (min)
Diameter - mm	Inner Diameter - mm	Inner Diameter - mm	Outer Diameter - mm	Outer Diameter - mm	Washer Thickness - mm	Thickness - mm	Thickness - mm
M5	5.5	5.8	15	13.9	1	1.2	0.8
M6	6.6	6.96	18	16.9	1.6	1.9	1.3
M8	9	9.36	24	22.7	2	2.3	1.7
M10	11	11.43	30	28.7	2.5	2.8	2.2
M12	13.5	13.93	37	35.4	3	3.6	2.4
M16	17.5	17.93	50	48.4	3	3.6	2.4
M20	22	22.52	60	58.1	4	4.6	3.4
M24	26	26.84	72	70.1	5	6	4
M30	33	34	92	89.8	6	7	5
M36	39	40	110	107.8	8	9.2	6.8

FURTHER SIZES IN THIS STANDARD

ALL DIMENSIONS PER THE STANDARD

Not held in stock. Available to order; minimum order quantity applies.

d	d1	d1 (max)	d2	d2 (min)	h	h (max)	h (min)
Diameter - mm	Inner Diameter - mm	Inner Diameter - mm	Outer Diameter - mm	Outer Diameter - mm	Washer Thickness - mm	Thickness - mm	Thickness - mm
M3	3.4	3.7	9	8.1	0.8	1	0.6
M3.5	3.9	4.2	11	9.9	0.8	1	0.6
M4	4.5	4.8	12	10.9	1	1.2	0.8
M14	15.5	15.93	44	42.4	3	3.6	2.4
M18	20	20.43	56	54.9	4	4.6	3.4
M22	24	24.84	66	64.9	5	6	4
M27	30	30.84	85	82.8	6	7	5
M33	36	37	105	102.8	6	7	5

MARKING

Carbon steel / Alloy steel

Head marking to ISO 898-3:2018

Stainless steel

Head marking to ISO 3506-7:2024

Marking requirements are set by the material standard named above, not by the product standard. Confirm the ordered property class before production.

INSPECTION DOCUMENTS WE CAN ISSUE

EN 10204 3.1 material certificate

Can be included when agreed in the order.

Dimensional inspection report

Can be provided for the agreed inspection scope.

Certificate of conformity

Can be issued against the confirmed order requirements.

Mechanical test report

Available when the required tests are agreed before production.

Chemical analysis report

Available when the material verification scope is agreed.

Coating inspection report

Can record the coating checks agreed for the order.

REFERENCES & NOTES

Note: Dimensional values follow the selected execution standard. Material properties and batch test results are included only when declared or supported by the applicable certificate or test report.