



BRIGHTON-BEST INTERNATIONAL



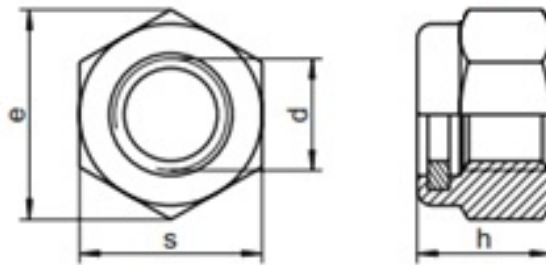
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DIN 985 Nylon Insert Lock Nuts - Metric Series

1.0 Dimensions: Per DIN 985

2.0 Key Dimensions



Disclaimer: The above is a compilation of data, from various industry standards. BBI has taken every effort to present the data accurately. However BBI cannot be held liable for any claim traceable to any errors typographical or otherwise contained herein.



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2.1 Key Dimensions Table

Thread Size d	Width Across Flats		Width Across Corners	Nut Height	
	S		e	h	
	Maximum	Minimum	Minimum	Maximum	Minimum
M3	5.5	5.32	6.01	4	3.7
M4	7	6.78	7.66	5	4.7
M5	8	7.78	8.79	5	4.7
M6	10	9.78	11.05	6	5.7
M7	11	10.73	12.12	7.5	7.14
M8	13	12.73	14.38	8	7.64
M10	17	16.73	18.9	10	9.64
M12	19	18.67	21.1	12	11.57
M14	22	21.67	24.49	14	13.3
M16	24	23.67	26.75	16	15.3
M18	27	26.16	29.56	18.5	17.66
M20	30	29.16	32.95	20	18.7
M22	32	31	35.03	22	20.7
M24	36	35	39.55	24	22.7
M27	41	40	45.2	27	25.7
M30	46	45	50.85	30	28.7
M33	50	49	55.37	33	31.4
M36	55	53.8	60.79	36	34.4
M39	60	58.8	66.44	39	37.4
M42	65	63.8	72.09	42	40.4
M45	70	68.1	76.95	45	43.4
M48	75	73.1	82.6	48	46.4

Notes:

- 1) All dimensions in millimeters.
- 2) Thread tolerance: 6H. For a detailed explanation of thread tolerances and dimensions for all thread sizes, refer to the Product Data Sheet on "Thread Details Metric Series".
- 3) BBI stocks most sizes. If we do not stock a size, it is available through our Mill department.
- 4) Comparison to ISO: There is no comparable ISO standard to DIN 985.



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3.0 Mechanical Properties:

A detailed explanation of the metric property class designations for various types of fasteners can be found in the Product Data Sheet (PDS) titled "Property Classes Metric Series".

3.1 DIN 985 Steel: Standard DIN 267 Part 4

DIN 985 nuts have a smaller nut height than DIN 982 nuts. As a result, DIN 985 nuts do not meet the higher proof load strength requirements of the DIN 982 nuts as specified in DIN 267 Part 15. To distinguish between DIN 985 nuts and DIN 982 nuts of the same property class, the DIN 985 nuts are marked with additional two vertical lines on either side of the property class number. Example: DIN 985 nut marking for property class 10 is **|10|** whereas the DIN 982 nut is marked with just **10**.

3.1.1 Steel: Mechanical Properties Table. Standard DIN 267 Part 4

Property Class	8	10
Hardness	HRC 30 Max	HRC 36 Max
Proof Load Strength	800 MPa	1000 MPa
Property Class Marking	8	10

Notes:

- 1) BBI currently stocks property classes 8 and 10 DIN 985 nuts. Requirements for other property classes can be made and supplied through our Mill department.
- 2) Prevailing torque requirements in accordance with DIN 267 Part 15.
- 3) MPa = Megapascal, the metric unit similar to Inch PSI and used for proof load strength of nuts. It is also termed as N/mm² (Newton Per millimeter square). 1 MPa = 1 N/mm² = 145.03773 psi.



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3.2 Stainless Steel: Mechanical Properties. Standard ISO 3506-2

3.2.1 Stainless Steel: Mechanical Properties Table. Standard ISO 3506-2

Property Class	A2-70	A4-80
Stainless Steel Group	Austenitic	Austenitic
Chemical Composition	18-8	316
Proof Load Strength	700 MPa	800 MPa
Property Class Marking	A2-70	A4-80

Notes:

- 1) Hardness is not a required mechanical property for austenitic stainless steel nuts per ISO 3506-2.
- 2) Mechanical properties provided in the table are for property classes currently stocked by BBI. Other property classes can be supplied through our Mill department.
- 3) There are no prevailing torque requirements for stainless steel nylon insert lock nuts in DIN 267 Part 15. Some manufacturers use approximately one-half of the maximum first installation torque of steel class 8 nylon insert locks nuts.
- 4) MPa = 145.03773 psi.

4.0 Surface Finish:

Steel: Plain and Zinc Plated. Zinc plating details shown in the table below.

Stainless Steel: Passivated and waxed

Plating	Zinc	Zinc Yellow
Type	Trivalent (Cr+3)	Hexavalent (Cr+6) or Trivalent (Cr+3)
Color	Clear	Yellow
Minimum Coating Thickness	0.0001" / 3 Microns	0.0001" / 3 Microns or 0.0002"
Specification	ASTM F1941/F1941M Fe/Zn 3AN	ASTM F1941/F1941M, Fe/Zn 3C or Fe/Zn 3CN