

All types of Nord-Lock washers

Material type

Steel	Stainless steel (ss)	254 SMO®	ALLOY C-276
-------	----------------------	----------	-------------

Applications

General steel applications	General stainless steel applications. Non chloride / acid environments	General salt water applications, pumps, chloride applications, heat exchangers, nuclear, desalination, food processing & medical equipment	General acidic environments, process and chemical industry, evaporators, offshore downhole tooling
----------------------------	--	--	--

Material standard

EN 1.7182	EN 1.4404	EN 1.4547	EN 2.4819 or equivalent
-----------	-----------	-----------	-------------------------

Size range

Regular outer diameter: M3-M130, #5 to 5" Enlarged outer diameter: M3.5-M36, #6 to 1 3/8"	Regular outer diameter: M3-M80, #5 to 3 1/8" Enlarged outer diameter: M3.5-M30, #6 to 1 1/8"	Regular outer diameter: M3-M39, #5 to 1 1/2" Enlarged outer diameter: M3.5-M27, #6-1"	Regular outer diameter: M4-M20, #8 to 5/8" Enlarged outer diameter: M8-M12, 5/16"
--	---	--	--

Corrosion resistance

Minimum 1,000 hours in salt spray test (according to ISO 9227)	PREN 27**	PREN 45**	PREN 68**
--	-----------	-----------	-----------

Hardening

Through hardened	Surface hardened	Surface hardened	Surface hardened
------------------	------------------	------------------	------------------

Washer hardness*

≥ 465HV1	≥ 520HV0,05	≥ 600HV0,05	≥ 520HV0,05
----------	-------------	-------------	-------------

Coating

Basecoat Delta Protekt® KL100, Topcoat VH 302 GZ Standard products in range M6-M24 are available with Delta Seal GZ Black top coat	-	-	-
---	---	---	---

Bolt grades

Up to 12.9	Up to A4-80
------------	-------------

Temperature range***

-50°C to 200°C	-160°C to 500°C	-160°C to 500°C	-160°C to 500°C
----------------	-----------------	-----------------	-----------------

Product designation

NL NLsp	NLss NLspss	NLss-254 NLspss-254	NLss-276 NLspss-276
------------	----------------	------------------------	------------------------

Laser Marking - Nord-Lock, traceable batch number and type code:

fIZn	SS	254	276
------	----	-----	-----

Hardness Conversion Table						
Vickers HV	Brinell HB	Rockwell HRC	Rockwell HRA	8.8 bolt	10.9 bolt	12.9 bolt
300	285	29,8	65,5			
310	295	31,0	65,8			
320	304	32,2	66,4		320 HV	
330	314	33,3	67,0			
335	319	33,9	67,3	335 HV		
340	325	34,4	67,6			
350	333	35,5	68,1			
360	342	36,6	68,7			
370	352	37,7	69,2			
380	361	38,8	69,8		380 HV	
385	366	39,3	70,1			385 HV
390	371	39,8	70,3			
400	380	40,8	70,8			
410	390	41,8	71,4			
420	399	42,7	71,8			
430	409	43,6	72,3			
435	414	44,1	72,5			435 HV
440	418	44,5	72,8			
460	437	46,1	73,6			
480	(456)	47,7	74,5			
500	(475)	49,1	75,3			
520	(494)	50,5	76,1			
540	(513)	51,7	76,7			