HUISHIH FORGING ___

316LN

316LN (UNS S31653) is a low carbon, nitrogen-enhanced version of type 316 austenitic stainless steel. The nitrogen in type 316LN improves the additional resistance to sensitization – the formation of grain boundary chromium carbides at temperatures between approximately 425 to 815 °C – which can result in rapid corrosion. The nitrogen content also provides some solid solution hardening, raising its minimum specified yield strength compared to type 316L stainless steel. Type 316LN also offers excellent resistance to general corrosion and pitting/crevice corrosion, like 316 and 316L.

Chemical Composition, %

element	Cr	Ni	Fe	Мо	Ν	С	Mn	Si	Р	S
min.	16.00	10.00	bal.	2.00	0.10					
max.	18.00	13.00		3.00	0.16	0.030	2.00	1.00	0.045	0.030

Chemical Composition according to ASTM. Some compositional limits of other specifications may vary slightly.

Designation and standards

National	Material	Chemical	Farainas	Rod and	Plate and	Chuin	Seamless
Standards	designation	composition	Forgings	bar	sheet	Strip	tube
							A213
				A276			SA213
ASTM	UNS S31653	A959	A182	SA276	A240	A240	A249
ASME	316LN	SA959	SA182	A479	SA240	SA240	SA249
				SA479			A312
							SA312
DIN	1.4429	DINI 10000 1		DIN 10088-3	DINI 10099-2	DINI 10090 0	DIN 10297-2
	X2CrNiMoN17-13-3		DIN 10222-5	DIN 10272	DIN 10066-2	10000-2	DIN 10216-5
	022Cr17Ni12Mo2N				CP/T 2200	CP/T 2200	CP/T 14075
GB/T	00Cr17Ni13Mo2N	GB/T 20878		GB/T 1220	GB/T 3280	GB/T 3280	GB/T 14975
	S31653				GB/1 4237	GB/1 4237	GB/1 149/6

Density 7.90g/cm³

Corrosion resistance

- better resistance to chloride pitting and crevice corrosion than type 316L
- more resistance to atmospheric corrosion and other mild types of corrosion than 18-8 stainless steels
- less resistant to highly oxidizing acids such as nitric acid

Applications

Typical applications are:

- chemical and pharmaceutical industries
- petrochemical industry
- food and beverage processing
- liquid gas production and storage vessels

You could send email to sales@huishih.com for more information.

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