HUISHIH FORGING __

310MoLN

310MoLN (UNS S31050) is the modified austenitic stainless steel 310 with low carbon, low silicon and high nitrogen content in order to stabilize and strengthen the austenitic phase. It is particularly designed for urea applications and designed to obtain a fully austenitic stainless steel free of intermetallic phases as intergranular carbide precipitations which affect drastically the corrosion resistance properties of the alloy in urea containing solutions. The ferrite level is kept under 0.5% in the solution annealing and water quenched conditions. The alloy is particularly designed for improved corrosion resistance properties in urea carbonate environments including strippers. The grade is also well designed for resistance in wet corrosive conditions due to its high contents of chromium, molybdenum and nitrogen (PREN \geq 33).

Chemical Composition, %

element	Cr	Ni	Fe	Мо	Ν	С	Mn	Si	Р	S
min.	24.00	21.00	bal.	2.00	0.10					
max.	26.00	23.00		3.00	0.16	0.030	2.00	0.40	0.030	0.015

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

Designation and standards

National	Material	Chemical	Forsings	Rod and	Plate and	Chris	Seamless
Standards	designation	composition	Forgings	bar	sheet	Surp	tube
							A213
							SA213
ASTM	UNS \$31050	A959	A182		A240	A240	A249
ASME	310MoLN	SA959	SA182		SA240	SA240	SA249
							A312
							SA312
DIN	1.4466	DIN 10099 1	DIN 100	DINI 10099-2	DIN 10099 0	DIN 10088-2	DIN 10297-2
	X1CrNiMoN25-22-2	DIN 10000-1		DIN 10060-5	DIN 10066-2		DIN 10216-5
	022Cr25Ni22Mo2N						
GB/T	00Cr25Ni22Mo2N GB/T 20878				GB/T 3280	GB/T 3280	
	S31053, U2				GB/1 4237	GB/1 4237	
CWCEC	X2CrNiMo25-22-2	14-A32S-95	14-A32S-95	14-A32S-95	14-A32S-95	14-A32S-95	14-A32S-95

Density 7.90g/cm³

Corrosion resistance

- excellent resistance to corrosion in ammonium carbamate and nitric acid
- excellent resistance to intergranular corrosion
- high resistance to pitting and crevice corrosion

Applications

Typical applications are:

- critical units of modern urea processes
- in fertilizer plants, such as Nitric acid cooler/condensers cooled with polluted cooling water

You could send email to sales@huishih.com for more information. Copyright HUISHIH Alloy Corporation.

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