

## AISI 310MoLN

## STAINLESS STEEL

BOLTING MATERIAL FOR HIGH TEMPERATURE SERVICE

Stainless steel grade 310MoLN is a fully austenitic stainless steel that does not have intermetallic phases such as intergranular carbide precipitations. The 310MoLN steel grade has an optimized chemical composition designed specifically for applications in urea plants. The nitrogen in the chemical composition helps to stabilize and strengthen the austenitic phase. This material provides improved corrosion-resistance in urea carbamate environments such as high-pressure strippers.

### Chemical Properties

C	Mn	P	S	Si	Cr	Mo	Ni	N
0.030 Max	2.00 Max	0.030 Max	0.015 Max	0.40 Max	24.0-26.0	2.00-3.00	21.0-23.0	0.10-0.16

### Mechanical Properties

Yield strength	Tensile strength	Elongation	Reduction
Min 0.2% Mpa	Min Mpa	Min %	min %
255	540	25	40

### Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal			Thermal Conductivity		Specific Heat	Melting Point
(Kg/m <sup>3</sup> )	(GPa)	Expansion(µm/m/°C)			(W/m.K)		0-100°C	°F
7.9	195	15.5	16.5	17	14	25	500	0.8

### Heat Treatment

Solution Annealed @ 1050°C & Liquid Quenched @ 260°C

### Equivalent Designation

UNS S31050  
 EN Name X1CrNiMoN25-22-2  
 Werkstoff.No. 1.4466  
 AFNOR Z1CND25.22AZ

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