

# AISI 304LN

# STAINLESS STEEL

BOLTING MATERIAL FOR HIGH TEMPERATURE SERVICE

AISI 304LN Stainless steel grade is the most commonly used stainless steel. Stainless steel grade 304LN is a nitrogen-strengthened version of stainless steel grade 304. AISI 304LN austenitic stainless steel for automatic characterization of fracture surfaces. The tensile tests have been carried out at five different strain rates. AISI 304LN stainless steel is particularly useful in the nuclear industries. In this work, a comparison of different texture analysis methods, namely, fractal analysis using box-counting method, grey level co-occurrence matrix technique and run length statistical analysis on the fractographs of AISI 304LN austenitic stainless steel has been done.

## Chemical Properties

C	Mn	P	S	Si	Cr	Ni	N
0.030 Max	2.00 Max	0.045 Max	0.030 Max	1.00 Max	18.0-20.0	8.0-10.0	0.10-0.16

## Mechanical Properties

Yield strength	Tensile strength	Elongation	Reduction
Min 0.2% Mpa	Min Mpa	Min %	min %
205	515	30	50

## 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	200	16.5	17.5	-	15	500	0.73

## Heat Treatment

Solution Annealed @ 1040°C & Liquid Quenched @ 260°C

## Equivalent Designation

UNS S30453  
 SUS 304LN  
 EN Name X2CrNiN18-10  
 Werkstoff.No.1.4311

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