MakerVerse

Data Sheet: Stainless Steel 316L (1.4404)[i]

1.4404, X 2 CrNiMo 17 13, 316L, ASTM F138

Alternative Designations

Standard	EN	ANSI/AA	UNS	JIS	SIS	UNE
Designation	EN 1.4404	316L	S31603		2343	SUS316

Chemical Composition

Element	Fe	Cr	Ni	Mo	Mn	Si	P	C	S
Percentage	Balance	16.5-18.5	10.0-13.0	2.0-2.5	0-2.0	0-1.0	0-0.045	0-0.30	0-0.03

Properties

Property	Yield strength R_p 0.2% [MPa][ii]	Ultimate tensile strength R_m [MPa][ii]	Elongation at Break [%][ii]	Young's Modulus [GPa][ii]	Relative Density [%]
Value	470-640	500-650	>40	>180	>99.5%

Tolerances

Property	Value as built	Unit
Achievable Part Accuracy[iii]	+/- 0.3 mm for parts up to 100 mm +/- 0.3 % for parts beyond 100 mm	mm/ %
Min. Wall thickness	0.8	mm

[i] The data from finished parts can deviate from above values depending on the manufacturing process and the component geometry. The data represents our present empirical values. It is incumbent on the person placing the order to examine whether it is suitable for its intended purpose, before using the product. The default postprocessing for this material is support removal and blasting.
[ii] Depending on build direction
[iii] As a result of the part's geometry, strong tensions may cause distortion in the part which may lead to greater deviation.