Xometry

Manufacturing On Demand

Data Sheet: Stainless Steel 1.4404

(X2CrNiMo17-12-2)

Alternative Designations

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

Details

The addition of molybdenum results in improved corrosion resistance with good stability against chloric and non oxidizing acid. It has good heat resistance which reduces in continuous use at 425 – 861°C in water. It can be readily formed into different products. It has good machinability and is used in food processing equipment, boat fittings, bolts, nuts and springs.

Key Features

Good heat resistance • Corrosion resistance

Chemical Composition

Element	C	Si	Mn	P	S	Cr	Mo	Ni
Percentage	0.03	1	2	0.045	0.015	16.5 – 18.5	2 – 2.5	10 - 13

Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	**190**	**490 - 690**	**≥45**	**150 - 200**

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Physical Properties

Property	Value
Density [g/cm³]	**7.98**
Module of elasticity [GPa]	**200**
Electrical conductivity [m/Ω · mm²]	**1.33**
Coefficient of thermal expansion [K-1 · 10-6]	**16.5**
Thermal conductivity [W/m · K]	**15**
Specific heat capacity [J/kg · K]	**500**

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.