

Data Sheet: Stainless Steel 17.4

Alternative Designations

Standard	DIN	ASTM	UNS	JIS	AISI	AFNOR
Designation	1.4542	A564	S17400	SUS630	630	Z7 CNU 16-04

Details

This is a chromium-nickel copper steel with high strength and excellent toughness. It has a tensile strength of 1070N/mm². It has good corrosion resistance. Due to its high strength, it is heavily employed in the aerospace and high-technology driven industries in components such as gears, turbine blades, shafts, molding dies.

Key Features

High strength • Excellent toughness

Chemical Composition

Element	C	Mn	P	S	Si	Cr	Ni	Cu	Nb
Percentage	0.07	1	0.04	0.03	1	15 – 17.5	3 - 5	3 - 5	0.15 – 0.45

Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	793	1103	5	35

Physical Properties

Property	Value
Density [g/cm ³]	7.78
Module of elasticity [GPa]	197
Electrical conductivity [m/Ω · mm ²]	2.16
Coefficient of thermal expansion [K ⁻¹ · 10 ⁻⁶]	10.8
Thermal conductivity [W/m · K]	17.9
Specific heat capacity [J/kg · K]	460

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://www.materialdatacenter.com) for further information on this material.