

Data Sheet

Stainless Steel 316Ti / 1.4571 / X6CrNiMoTi17-12-2

Alternative Designations

X6CrNiMoTi17-12-2 (ISO) | 316Ti (AISI/SAE) | S31635 (UNS) | Z6NDT17.12 (AFNOR) | 320S17 (BS) | F.3535 (UNE) | 2350 (SIS) | X6CrNiMoTi1712 (UNI) | SUS316TI (JIS)

Key Features

Excellent corrosion resistance • Low hardenability • Excellent durability • High strength

Description

Stainless steel 1.4571 is austenitic stainless steel that contains chromium and nickel. The addition of these elements gives the steel good corrosion resistance and high mechanical strength. This material contains a small amount of titanium (about 0.5 - 0.75%). The titanium gives the steel a stable structure at temperatures above 800° C. It has excellent corrosion resistance. It has good machinability but cannot be hardened by heat treatment. It is available as sheets, tubes, pipes, plates or bars. It is good for marine environments.

Mechanical Properties

235 MPa
500 – 700 MPa
30 - 40%
215
200 GPa

Physical Properties

Density	8 g/cm ³
Electrical conductivity	$1.33 \text{ m/}\Omega \cdot \text{mm}^2$
Coefficient of thermal expansion	16.5 K-1 · 10-6
Thermal conductivity	15 W/m · K
Specific heat capacity	500 J/kg ⋅ K

Chemical Composition

Al	-	N	-
Ві	-	Nb	-
С	0.08%	Ni	10.5 – 13.5%
Cd	-	0	-
Со	-	Р	0.045%
Cr	16.5 – 18.5%	Pb	-
Cu	-	S	0.015%
Fe	-	Si	1%
Н	-	Sn	-
Mg	-	Ti	5×C - 0.70%
Mn	2%	V	-
Мо	2 - 2.5%	Zn	-

Reference

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