

# Stainless Steel 304

## Alternative

## Designations

X5CrNi18.10 (ISO) | 304 (AISI/SAE)  
| S30400 (UNS) | Z6CN18.09  
(AFNOR) | 304S15 (BS) | F.3551  
(UNE) | 2332 (SIS) | X5CrNi1810  
(UNI) | SUS304  
(JIS)

## Key Features

Excellent corrosion resistance •  
Low thermal conductivity • Good  
machinability

## Description

Stainless steel V2A is an austenitic chromium-nickel stainless steel. It is also known as 18/8 stainless steel. This is chromium-nickel austenitic stainless steel. The chromium element gives it excellent corrosion resistance. It has a tensile strength of 500 – 700 MPa. It has good machinability but low thermal conductivity. It is used in kitchen equipment such as pans, tubes, sinks and many more. It is easily formable. Due to its excellent resistance to corrosion, it is widely used in the food and beverage industry, as well as in many other industries.

## Datasheet >

### Mechanical Properties

Yield strength	225 MPa
Tensile strength	500–700 MPa
Elongation at break	35–45%
Hardness	215
Module of elasticity	200 GPa

### Physical Properties

Density	7.9 kg/dm <sup>3</sup>
Electrical conductivity	14 m/Ω • mm <sup>2</sup>
Coefficient of thermal expansion	16 K <sup>-1</sup> • 10 <sup>-6</sup>
Thermal conductivity	15 W/m • K
Specific heat capacity	500 J/kg • K

### Chemical Composition

Al	-	N	0.1%
Bi	-	Nb	-
C	0.07%	Ni	8–10.5%
Cd	-	O	-
Co	-	P	0.045%
Cr	17–19.5%	Pb	-
Cu	1%	S	0.015%
Fe	-	Si	1%
H	-	Sn	-
Mg	-	Ti	-
Mn	2%	V	-
Mo	-	Zn	-