



## TYPE 304 STAINLESS STEEL STRIP

304 stainless steel is used for a wide variety of home and commercial applications, which has a minimum of 18% chromium and 8% nickel.

18% chromium makes 304 stainless steel corrosion-resistant. In a medium oxidizing solution, such as nitric acid, acetic acid, and oxalic acid, and other organic oxidizing solutions. 8% nickel allows 304 stainless steel to work normally in a cold, weakly sulfated environment. This allows 304 stainless steel to be used in industries such as food, household appliances, and the storage of some industrial chemicals.

Chemical Composition%	
Carbon(C)	≤ 0.08
Manganese(Mn)	≤ 2.0
Sulphur(S)	≤ 0.03
Phosphorus(P)	≤ 0.045
Silicon(Si)	≤ 1.0
Chromium(Cr)	18.0~20.0
Nickel(Ni)	8.0~10.5

### Stainless Steel Grade Comparison:

NATION	CHINA	JAPAN	USA	GERMANY	ENGLAND
STANDARD	GB	JIS	AISI/SAE	DIN	BS
NO.	0Cr18Ni9	SUS 304	304	X5CrNi189	58E

304 stainless steel meets the requirements of ASTM A240 and ASTM SA240. 304 stainless steel strip Resistance to corrosion in oxidizing environments. Good oxidation resistance in intermittent service to 1600° F and in continuous service to 1690° F.

## Mechanical Behavior:

Deformation of 304 stainless steel at room temperature will increase its strength and reduce elongation. This change in strength easily transforms it from austenite to martensite. Therefore, the strength of 304 stainless steel is not as good as 301, 302 and other austenitic stable stainless steels.

Hardness	Yield Strength, (Mpa)	Tensile Strength, (Mpa)	Elong.%	HV
ANN	205 min	520 min	40	200 min
Half Hard	470 min	780 min	6	250 min
3/4 Hard	668 min	930 min	3	310 min
Full Hard	880 min	1130 min	-	370 min

## Welding

Austenitic stainless steel is generally considered to be the high alloy steel with the best welding performance. 304 stainless steel strip can be used for various resistance welding and fusion welding. However, when welding 304 stainless steel,

you need to pay attention to: 1) Do not destroy the corrosion-resistant layer on the surface of 304 stainless steel; 2) Do not crack.

304 stainless steel is prone to cracks during welding. Therefore, it is recommended that 304 stainless steel be resolidified with a small amount of ferrite during welding to reduce crack sensitivity.