

## Applications

Applications of 304 stainless steel include: food processing equipment, pharmaceutical equipment, chemical processing equipment, marine hardware, architectural trim, and many other applications where corrosion resistance is required.

## Oxidation Resistance

304 stainless steel has excellent oxidation resistance in a wide range of environments. It is suitable for use in oxidizing acids, such as nitric acid, and in many other corrosive environments.

## Mechanical Properties

Typical Values at 68°F (20°C)

Yield Strength 0.2% Offset		Ultimate Tensile Strength		Elongation in 2 in.	Hardness
psi	(MPa)	psi	(MPa)	%	
65,000	44	125,000	62	50	200

## Physical Properties

### Density

0.305 lb/in<sup>3</sup>  
.44 g/cm<sup>3</sup>

### Specific Heat

0.102 Btu/lb·°F (32-212°F)  
427 J/kg·°C (0-100°C)

### Modulus of Elasticity

30.1 x 10<sup>6</sup> psi  
207.5 GPa

### Thermal Conductivity 212°F (100°C)

75 Btu/ft·hr·°F  
10.1 W/m·°C

### Melting Range

2350-2460°F  
1200-1350°C

### Electrical Resistivity

50 x 10<sup>-8</sup> Ω·in  
12 x 10<sup>-8</sup> Ω·m

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## Corrosion Resistance



