PROTOLABS
Manufacturing. Accelerated.

Stainless Steel 304

Stainless 304 is the most common stainless steel. This steel contains both chromium and nickel metals as the main non-iron constituents. It has good resistance to oxidation, corrosion, and provides superior part surface quality.

Applications

Stainless Steel 304 is desirable for general-purpose applications and environments, medical instruments, machine parts, corrosion-resistant machined parts, food and pharmaceutical production equipment, nuts and bolts, washers, springs, and water treatment.

Key Product Benefits

- Corrosion and Oxidation Resistance
- Machinability
- Ductility
- Excellent Impact Toughness Even at Extremely Low Temperatures
- Low Cost

Properties

Property	Value (Imperial)
Ultimate Tensile Strength	99 ksi
0.2% Offset Yield Strength	48 ksi
Elongation in 2 inches	52%
Reduction in Area	61%
Rockwell B Hardness	85
Density	0.285 lb/in^3
Modulus of Elasticity	29 × 10^6 psi
Coefficient of Thermal Expansion (68-212°F)	8.9 × 10^{-6}/°F
Thermal Conductivity	8.7 BTU/ft-hr-°F
Heat Capacity	0.12 BTU/lb-°F
Electrical Resistivity	33.5 × 10^{-6} ohm-inch