



# ALLOY PRODEC® TYPE 316/316L

AMS 5507 / AMS 5524 / UNS S31600 / UNS S31603

## Products & Sizes

### Plate

0.1875" - 3.500"

## PRODEC® Type 316/316L Chemical Composition

	Element	Min	Max
C	Carbon	-	0.08
Mn	Manganese	-	2.00
P	Phosphorus	-	0.045
S	Sulfur	-	0.03
Si	Silicon	-	0.75
Cr	Chromium	16.0	18.0
Ni	Nickel	10.0	14.0
Mo	Molybdenum	2.00	3.00
N	Nitrogen	-	0.10

## Industry Standards

All of our PRODEC® Type 316/316L plate is ordered to specific decimal thicknesses. Please contact us for more details.

## Industry Applications

- Chemical processing equipment
- Fasteners
- Food and beverage industry
- Flanges and valves
- Machined components
- Water treatment

## Physical Properties

Property	Value
Density	0.285 lb/in <sup>3</sup>
Modulus of Elasticity	29 x 10 <sup>6</sup> psi
Coefficient of Thermal Expansion	68-212°F, /°F: 8.9 x 10 <sup>6</sup>
Thermal Conductivity	8.7 Btu/ft hr°F
Heat Capacity	0.12 Btu/lb°F
Electrical Resistivity	27.6 x 10 <sup>6</sup> Ω-inch

## Mechanical Properties

### Hardening

PRODEC® Type 316/316L plate cannot be hardened by heat treatment. However, PRODEC® Type 316/316L plate can be hardened by cold working.

### Annealing

PRODEC® Type 316/316L plate should be heated to 1900°F minimum, then water quenched or rapidly cooled by other means.

The technical data provided is for information only and not for design purposes. It is not warranted or guaranteed

Mechanical Properties of PRODEC® Type 304/304L			
Property	Typical	ASTM 316	ASTM 316 LP
Ultimate Tensile Strength, ksi	85	75 min	70 min
0.2% Offset Yield Strength, ksi	44	30 min	25 min
Elongation in 2 inches, %	56	40 min	40 min
Reduction in Area, %	69		
Hardness, Rockwell B	81	95 max	95 max