UNITED PERFORMANCE METALS
QUALITY SOLUTIONS. TRUSTED PARTNERS.
AN ONI COMPANY

Prodec® 316P/316LP

Prodec®316P/316LP is an improved version of standard Type 316/316L. With advanced ladle metallurgy techniques, the steel is processed for improved machinability and outstanding uniformity. 316P/316LP offers faster machining speeds, longer tool life, improved part quality, and a lower total cost of machined parts.

Specifications

UNS: S31600, S31603
AMS: 5507, 5524

Chemical Composition, %

Element	Maximum Unless Range is Specified
Carbon	0.030
Manganese	2.00
Phosphorus	0.045
Sulfur	0.030
Silicon	0.75
Chromium	16.0 - 18.0
Nickel	10.0 - 14.0
Molybdenum	2.00 - 3.00
Nitrogen*	0.10

Features

- Maintains tighter dimensional tolerances and produces a superior surface finish
- Ensures corrosion resistance equal to conventionally produced plate
- Provides improved resistance to pitting and crevice corrosion in environments containing chlorides and other halides.

Applications

- Chemical processing equipment
- Fasteners
- Food and beverage industry

Prodec® 316P/316LP

Physical Properties

Physical Properties	
Density, lb/in³	0.285
Modules of Elasticity, psi	29 x 10^6
Coefficient of thermal Expansion, 68 - 212°F/F°	9.4 x 10^{-6}
Thermal Conductivity, Btu/ft hr°F	8.7
Heat Capacity, Btu/lb°F	0.12
Electrical Resistivity, Ω-inch	27.6 x 10^{-6}

Mechanical Properties

Mechanical Properties at Room Temperature			
	Typical	ASTM 316	
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 mac	95 max

*0.375 inch plate