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

MP35N Alloy Steel
AMS 5844

MP35N® alloy steel bar is a nickel, chromium, and cobalt alloy. This grade is non-magnetic and possesses an ultra-high tensile strength and provides for good ductility. This alloy has a maximum 750°F temperature capability. In addition, it has excellent corrosion resistance to chloride solutions, mineral acids, and in hydrogen sulfides.

The ability of MP35N® to resist stress-corrosion and crevice corrosion often leads to its selection as a fastener material, although its uses also include petrochemical equipment, racing engines and submersibles as well as medical devices and dental equipment. This alloy is typically work-strengthened and aged to obtain strength levels of 260 to 300 ksi.

Nominal Composition %

- C – Carbon – 0.02%
- Mn – Manganese – 0.15%
- P – Phosphorous – 0.015%
- S – Sulfur – 0.010%
- Si – Silicon – 0.015%
- Cr – Chromium – 19.00 – 21.00%
- Ni – Nickel – 33.00 – 37.00%
- Mo – Molybdenum – 9.00 – 10.50%
- Co – Cobalt – Balance
- Ti – Titanium – 1.00%
- B – Boron – 0.010%
- Fe – Iron – 1.00%

Percent by weight, maximum unless a range is listed.

Standard Inventory Specifications

- AMS 5844
- SPS-M-663

Forms Stocked

- MP35N Bar Stock

Thickness Stocked

- 0.270” – 0.900” thick

Applications

- Aerospace fasteners
- Tie rods
- Chemical processing
- Medical devices
- Dental equipment
- Cryogenic equipment
- Marine equipment
- Oil & gas
- Food processing

Call 1.888.282.3292

Or click here to view our product page and request a quote on MP35N alloy steel bars

Physical Properties

Property	Value - Metric	Value - Imperial
Density	8.417 g/cm³	0.304 lb/in³