

The highest strength alloy available to industry, MP35N fasteners are known for their extraordinary strength. They offer high strength properties that range from 227 ksi to 294 ksi ultimate tensile strength (with age hardening). MP35N is resistant to high temperature oxidation and can retain much of their strength up to 800°F. In addition to their superior strength, MP35N bolts provide good corrosion resistance to mineral acids, hydrogen sulfide, seawater and salt spray environments.

Properties

| | |
|---------------------------|---------------|
| Ultimate Tensile Strength | 285 ksi |
| Yield Strength at 0.2% | 275 ksi |
| Elongation % | 9 |
| Usable Temperature Limit | 800°F / 426°C |

Chemistry & Specifications

| MP35N | Ni | Co | Cr | Mo |
|-----------|----|----|----|----|
| Typical % | 35 | 35 | 20 | 10 |

SPECIFICATIONS: AMS 5844, AMS 5845, AMS7468, ASTM F562, NACE MR0175

Material Data

| MP35N - Corrosion Data | | | |
|------------------------|----------------------|-------------------|----------------------|
| Media | Corrosion Resistance | Media | Corrosion Resistance |
| Nitric Acid | Good | Sulfuric Acid | Good |
| Phosphoric Acid | Good | Acetic Acid | Excellent |
| Sodium Hydroxide | Good | Salt Spray (NaCl) | Excellent |
| Sea Water | Excellent | Sour Oil/Gas | Excellent |

Important Note: The following 4-level rating scale is intended for comparative purposes only for this materials only. Corrosion testing is recommended; factors which affect corrosion resistance include temperature, concentration, pH, impurities, aeration, velocity, crevices, deposits, metallurgical condition, stress, surface finish and dissimilar metal contact.

| MP35N - Tensile Data | | | |
|--------------------------|------------------------|-------------------------------------|--------------|
| AGED, TYPICAL PROPERTIES | | | |
| Temperature (°F) | Ultimate Tensile (ksi) | Yield Strength at 0.2% Offset (ksi) | Elongation % |
| Room Temp. | 227-294 | 217-285 | 10-14.2 |
| 300 | 200-266 | 190-255 | 8-13.9 |
| 400 | 193-260 | 186-248 | 8-13.5 |
| 500 | 190-253 | 181-241 | 8-13 |
| 600 | 184-250 | 177-236 | 8-13 |
| 700 | 186-245 | 176-230 | 7-13 |
| 800 | 187-240 | 176-225 | 4-13 |

Key Benefits

- The highest strength fastener we offer
- Ultimate tensile strength 227-294 ksi with age hardening
- Retains strength to 800°F
- Resistant to high temperature oxidation
- Moderate corrosion resistant