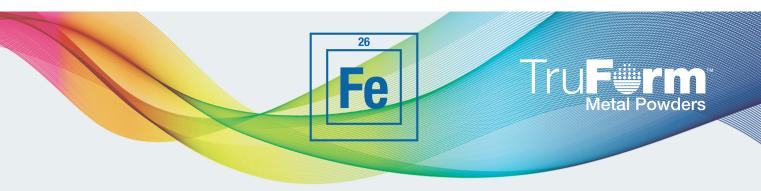
TruForm[™] Metal Powders for Additive Manufacturing





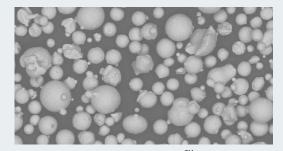


TruForm™ M300 Metal Powder

TruForm[™] M300 is a maraging tool steel that exhibits high strength and excellent hardness. TruForm[™] M300 is commonly used to fabricate parts for injection molding, die-casts, and other high performance applications. Several variations of M300 chemistries are available. Also known as: 1.2709, 18Ni300, X3NiCoMoTi 18-9-5.

Particle Size Distribution

Powders are available in a wide variety of particle size distributions and can be customized for your applications.



Representative SEM Image - $TruForm^{TM}$ M300

TruForm[™] Metal Powders for All Additive Manufacturing Processes Including:

- Direct Metal Deposition (DED)
- → Direct Metal Laser Sintering (DMLS)
- → Electron Beam Melting (EBM)
- → Laser Metal Deposition (LMD)
- → Laser Powder Bed Fusion (LPBF)



Typical Mechanical Properties (contact us for additional property data)

| ROOM TEMPERATURE | HEAT TREAT PER ASM 5915 | MIN. AMS 5915 |
|---------------------------|--------------------------------|--------------------------------|
| (XY) Tensile Strength (Z) | 1175 ± 100 MPa 170 ± 15 ksi | 2150 ± 100 MPa 312 ± 15 ksi |
| | 1100 ± 100 MPa 160 ± 15 ksi | 2105± 100 MPa 312 ± 15 ksi |
| (XY) Yield Strength (Z) | 1050 ± 100 MPa 152 ± 15 ksi | 2100 ± 100 MPa 305 ± 15 ksi |
| | 990 ± 100 MPa 144 ± 15 ksi | 2100 ± 100 MPa 305 ± 15 ksi |
| (XY) Elongation (Z) | 15 ± 5% | 5 ± 2% |
| | 15 ± 5% | 6 ± 2% |
| (XY) Hardness (Z) | 37 ± 2 HRC | 54 ± 3 HRC |

| ELEMENT | TYPICAL COMPOSITION |
|---------|---------------------|
| Fe | Bal |
| Ni | 17.0 - 19.0 |
| Со | 8.0 - 11.0 |
| Мо | 4.5 - 5.2 |
| Ti | 0.3 - 1.2 |
| Al | 0.15 Max |
| Ct | 0.50 Max |
| Si | 0.10 Max |
| Mn | 0.10 Max |
| С | 0.03 Max |
| Р | 0.03 Max |
| S | 0.01 Max |
| | |

TruForm[™] Metal Powders for Additive Manufacturing







Our quality laboratory is NADCAP accredited and registered as an ISO-9001:2008 and AS9100 facility. We offer 100 percent lot inspection along with a certificate of analysis that details the variety of quality tests we conduct from our state-of-the-art facility. This ensures your printed products meet your performance and surface finish specifications.

Contact Us Today

Contact our technical sales team for guidance in selecting a material, requesting an alloy not listed here, or for additional details.

praxairsurfacetechnologies.com/am

USA TruForm@linde.com **EU** AME.Europe@linde.com



Powder Atomization Capabilities

Praxair Surface Technologies is a worldwide resource for fine and spherical, gas-atomized powders and a leader in vacuum induction melt argon gas atomization (VIM-AGA) technology.

We operate numerous vacuum induction melt units with Argon gas atomization and pour more than 5+ million lbs of powder each year.



Additive Manufacturing Lab

We are printing parts every day in our AM metal powder laboratory to ensure that layer by layer, you are getting a premium product that can produce products to your exacting specifications.

© Copyright 2022 Praxair S. T. Technology, Inc., All rights reserved