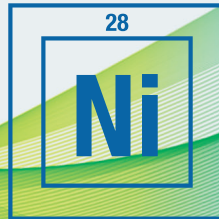


# TruForm™ Metal Powders for Additive Manufacturing



Making our world  
more productive



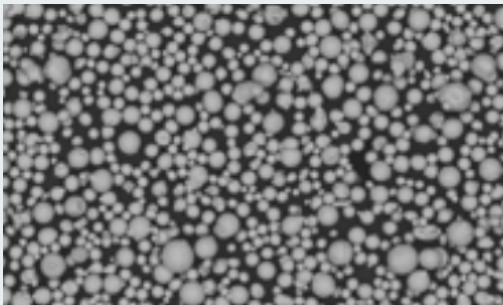
TruForm™  
Metal Powders

## TruForm™ 282 Metal Powder

Haynes® 282® is a gamma-prime strengthened nickel-chromium alloy with excellent creep strength in the temperature range of 1200°F to 1700°F (649 to 927°C). This patented alloy also combines thermal stability, weldability, and fabricability. Haynes® 282® is a high volume production alloy for high temperature applications such as aircraft engines and gas turbines.

### Particle Size Distribution

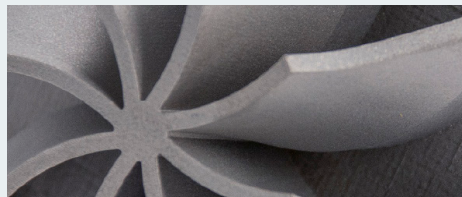
Powders are available in a wide variety of particle size distributions and can be customized for your applications.



Representative SEM Image - TruForm™ 282

### 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)



ELEMENT	TYPICAL COMPOSITION
Ni	Bal
Cr	18.5 - 19.5
Co	8.0 - 11.0
Mo	8.0 - 9.0
Ti	1.90 - 2.30
Al	1.38 - 1.65
C	0.04 - 0.08
B	0.003 - 0.010
Fe	1.5 Max
W	0.5 Max
Mn	0.3 Max
Nb	0.2 Max
Si	0.15 Max
Cu	0.1 Max
Zr	0.020 Max
P	0.015 Max
S	0.015 Max

Typical Mechanical Properties (contact us for additional property data)

ROOM TEMPERATURE	HEAT TREAT PER AMS 5915	MINIMUM AMS 5915
Tensile Strength	(XY) 1232± 100 MPa 179 ± 15 ksi	1027 MPa 149 ksi
	(Z) 1208 ± 100 MPa 179 ± 15 ksi	
Yield Strength	(XY) 762 ± 100 MPa 111 ± 15 ksi	593 MPa 86 ksi
	(Z) 759 ± 100 MPa 110 ± 15 ksi	
Elongation	(XY) 33 ± 5%	20%
	(Z) 33 ± 5%	

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A Linde company



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## AM Quality Lab

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.  
[praxairsurfacetech.com/am](https://www.praxairsurfacetech.com/am)

USA [TruForm@linde.com](mailto:TruForm@linde.com)

EU [AME.Europe@linde.com](mailto: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.

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