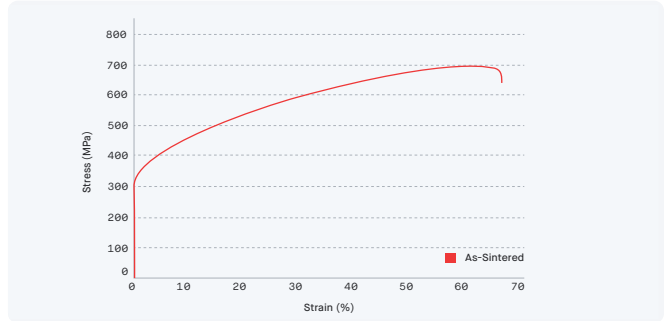


[Material Data Sheet]

IN625

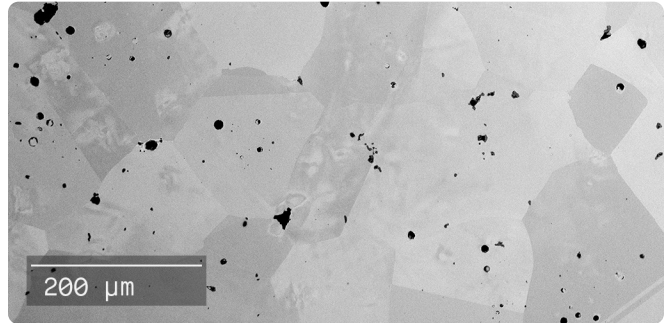
Nickel Alloy

PureSinter Furnace



COMPOSITION %

Cr	20.0 - 23.0
Mo	8.0 - 10.0
Nb	3.15 - 4.15
Fe	0.0 - 5.0
Co	0.0 - 1.0
Mn	0.0 - 0.5
Si	0.0 - 0.5
Al	0.0 - 0.4
Ti	0.0 - 0.4
C	<0.10 (max)
O	<0.12 (max)
Ni	Balance



MECHANICAL PROPERTIES IN DESKTOP METAL PURESINTER FURNACE

	Standard	Production System™ As-Sintered in PureSinter
Ultimate tensile strength (MPa)	ASTM E8	690 ± 5
Yield strength (MPa)	ASTM E8/E8M	285 ± 5
Elongation at break (%)	ASTM E8	64 ± 2.9
Young's modulus (GPa)	ASTM E111	197
Hardness (HRB)	ASTM E18	80.4 ± 0.8
Density (g/cm³)		8.35 ± 0.004

OTHER STANDARD DESIGNATIONS

UNS N06625
AMS 5666F
DIN NiCr22Mo9Nb

ATTRIBUTES & APPLICATIONS

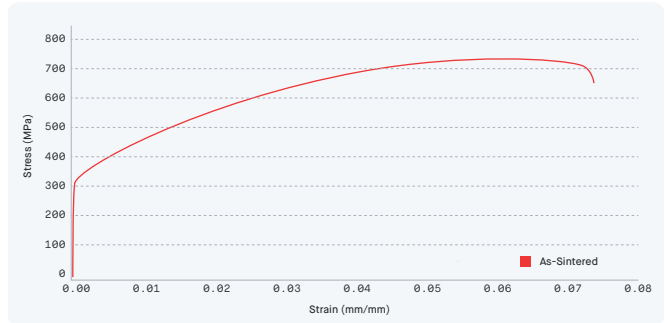
- Excellent fatigue, thermal fatigue, oxidation & corrosion resistance
- High tensile, creep and rupture strength
- Corrosive environments (e.g. sea water applications)
- Combustion and burner components (e.g. nozzles)
- Oil and Gas components (e.g. deep sea drilling rig components)

1. YS, UTS, Elongation, and Young's modulus properties noted represent Xy orientation
 2. Listed designations are for reference purposes only. Composition and mechanical properties may vary.
 3. Per MPIF Standard 35, Materials Standards for Metal Injection Molded Parts (MPIF 35-MIM, 2018). End-use material performance is impacted (+/-) by certain factors including but not limited to part geometry and design, application and evaluation conditions, etc.

[Material Data Sheet]

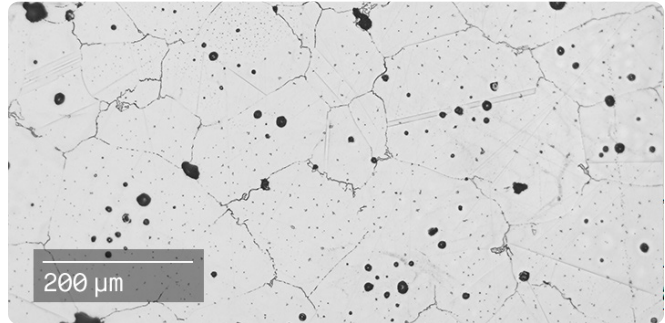
IN625

Heat and Corrosion Resistant Nickel Alloy



COMPOSITION %

Ni	Balance
Cr	20.00 - 23.00
Mo	8.00 - 10.00
Nb	3.15 - 4.15
Fe	0.00 - 5.00
Mn	0.00 - 0.50
Si	0.00 - 0.50
O	<0.12 (max)
Al	0.00 - 0.40
P	0.00 - 0.015
C	<0.10 (max)
Co	0.00 - 1.00
Ti	0.00 - 0.40
S	0.00 - 0.015



MECHANICAL PROPERTIES IN THIRD-PARTY COMMERCIAL FURNACE

	Standard	Production System™ As-Sintered
Ultimate tensile strength ¹ (MPa)	ASTM E8/E8M	695 ± 10
Yield strength ¹ (MPa)	ASTM E8/E8M	295 ± 28
Elongation at break (%)	ASTM E8/E8M	63 ± 8
Young's modulus ² (GPa)	ASTM E111	200
Hardness (HRB)	ASTM E18	81.5 ± 1.2
Charpy impact strength (J)	ASTM E23	28
Density (g/cm ³)		8.31
Surface finish ³ (μm Ra)	ISO 4287	3 - 8

OTHER STANDARD DESIGNATIONS

UNS N06625
AMS 5666F
DIN NiCr22Mo9Nb

ATTRIBUTES & APPLICATIONS

Excellent Fatigue, Thermal Fatigue, Oxidation & Corrosion resistance

High tensile, creep and rupture strength

Heat treatable material

Corrosive environments (e.g. sea water applications)

Combustion and burner components (e.g. nozzles)

Oil and Gas components (e.g. deep sea drilling rig components)

1. YS & UTS properties noted represent mean values across Xy & Yx orientations.
2. Charpy impact specimens used were V-notched 5 x 10 mm.
3. Surface roughness measured in Z direction after sintering & sand blasting.