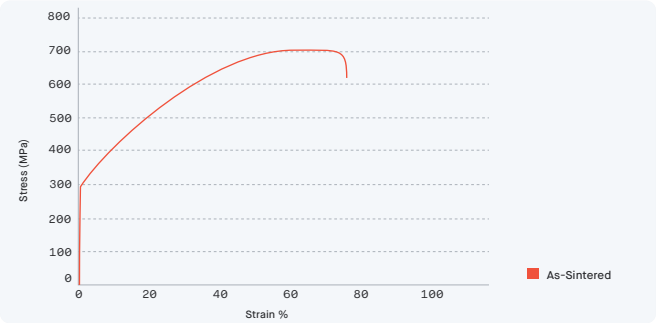
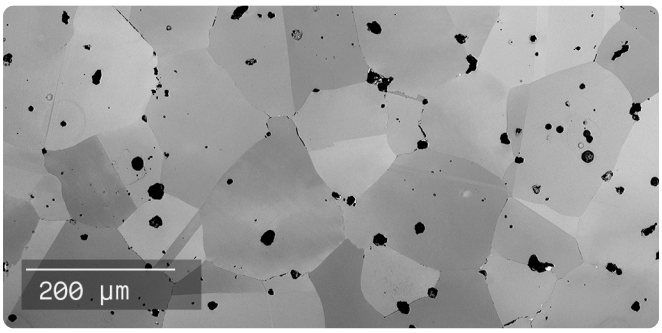
[Material Data Sheet]

IN625
Nickel Alloy
PureSinter Furnace





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
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 DESKTOP METAL PURESINTER FURNACE

	Standard	Shop System ™ As-Sintered
Ultimate tensile strength (MPa)	ASTM E8/E8M	**695 ± 7**
Yield strength (MPa)	ASTM E8/E8M	**290 ± 3**
Elongation at break (%)	ASTM E8/E8M	**71.3 ± 4**
Young's modulus (GPa)	ASTM E111	**204**
Hardness (HRB)	ASTM E18	**79.1 ± 2**
Density (g/cc)		**8.35 ± 0.02**

ATTRIBUTES & APPLICATIONS

- Excellent fatigue, thermal fatigue, oxidation & corrosion resistance
- High tensile, creep and rupture strength
- Heat-treatable and weldable material
- Aerospace components (e.g. nozzles, combustion and burner systems)
- Corrosive environment (e.g. marine, power generation, chemical processing applications)
- Oil & gas components (e.g. deep sea drilling rig components)

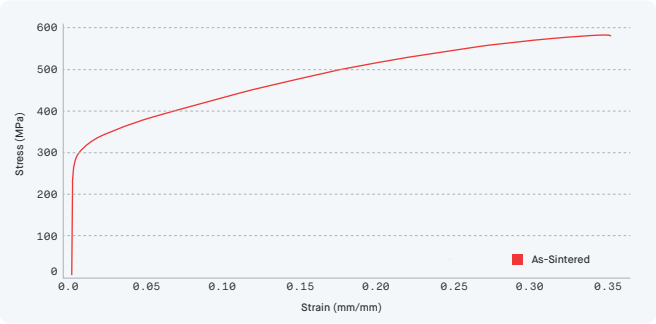
OTHER STANDARD DESIGNATIONS

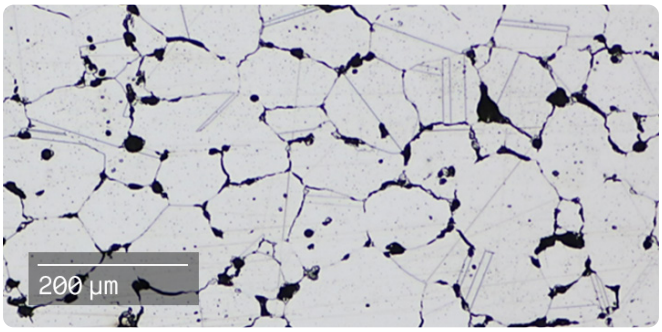
- UNS N06625
- AMS 5666F
- DIN NiCr22Mo9Nb

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.

[Material Data Sheet]

IN625
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
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 SINTERED IN THIRD-PARTY COMMERCIAL FURNACE [1]

	Standard	Shop System ™ As-Sintered	Shop System ™ Sintered and HIP [2]
Ultimate tensile strength – xy (MPa)	ASTM E8M	**595 ± 20**	**661 ± 38**
Yield strength – xy (MPa)	ASTM E8M	**287 ± 5**	**303 ± 7**
Elongation – xy (%)	ASTM E8M	**35 ± 3**	**42 ± 9**
Young's modulus – xy (GPa)	ASTM E111	**204 ± 22**	**204 ± 22**
Hardness (HRB)	ASTM E18	**77 ± 2**	**82 ± 2**
Density (g/cc)	ASTM B311	**8.2 ± 0.05**	**8.43 ± 0.02**

ATTRIBUTES & APPLICATIONS

- Excellent fatigue, thermal fatigue, oxidation & corrosion resistance
- High tensile, creep and rupture strength
- Heat-treatable and weldable material
- Aerospace components (e.g. nozzles, combustion and burner systems)
- Corrosive environment (e.g. marine, power generation, chemical processing applications)
- Oil & gas components (e.g. deep sea drilling rig components)

OTHER STANDARD DESIGNATIONS [3]

- UNS N06625
- AMS 5666F
- DIN NiCr22Mo9Nb

1. Mechanical properties noted represent mean values +/- 1 standard deviation across Xy & Yz orientations for as-printed samples.
2. Samples were hot isostatic pressed at 2125°F and 14.75 ksi for 240 minutes.
3. Listed designations are for reference purposes only. Composition and mechanical properties may vary.

End-use material performance is impacted (+/-) by certain factors including but not limited to part geometry and design, application and evaluation conditions, etc.