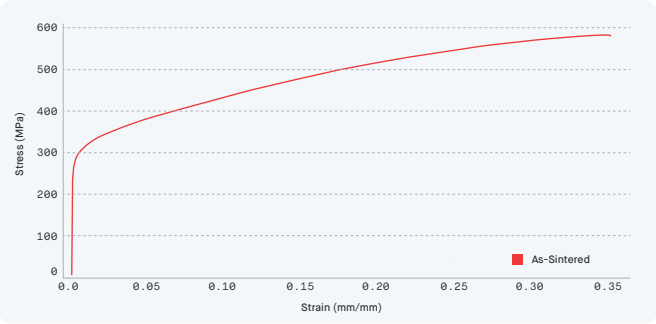
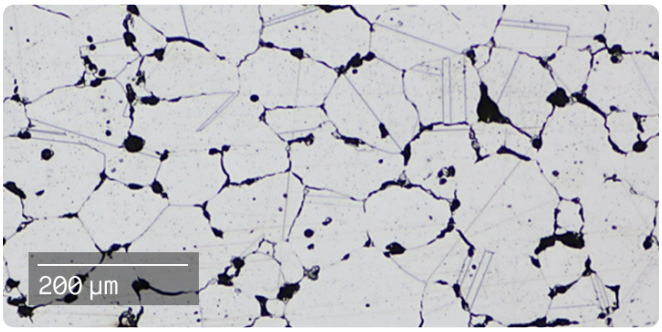
[Material Data Sheet]

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 [1]

	Standard	Shop System ™ As-Sintered
Ultimate tensile strength – xy (MPa)	ASTM E8M	**595 ± 20**
Yield strength – xy (MPa)	ASTM E8M	**287 ± 5**
Elongation – xy (%)	ASTM E8M	**35 ± 3**
Young's modulus – xy (GPa)	ASTM E111	**204 ± 22**
Hardness (HRB)	ASTM E18	**77 ± 2**
Density (g/cc)	ASTM B311	**8.2 ± 0.05**

OTHER STANDARD DESIGNATIONS [2]

UNS N06625

AMS 5666F

DIN NiCr22Mo9Nb

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)

1. Mechanical properties noted represent mean values +/- 1 standard deviation across Xy & Yz orientations for as-printed samples.
2. 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.