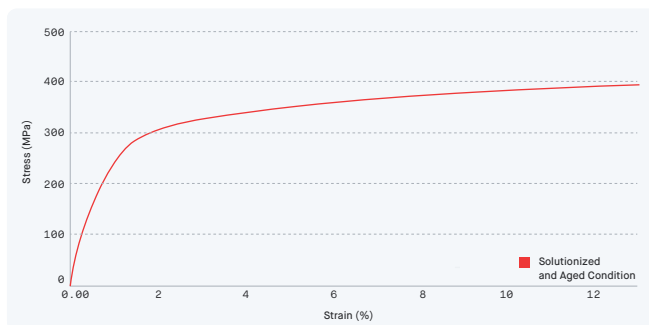


[Material Data Sheet]

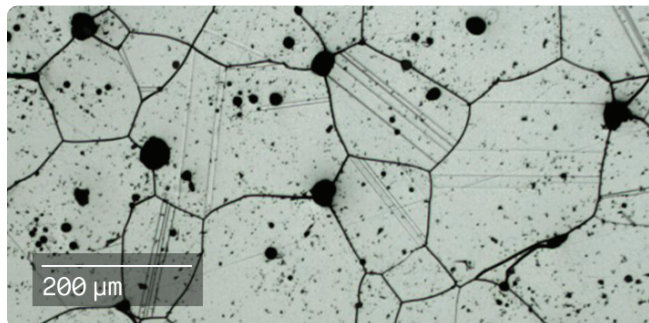
IN625

Nickel Alloy



COMPOSITION %

C	0.013
S	0.0009
Al	0.01
Co	0.02
Cr	21.20
Fe	2.00
Mn	0.42
Mo	9.20
Nb	3.51
Ta	0.03
Ni	63.00
P	0.018
Si	0.50
Ti	0.01



MECHANICAL PROPERTIES

	Standard	X-Series Solution Treated and Aged
Ultimate Tensile Strength (MPa)	ASTM E8	X: 718 – 730 Y: 707 – 732 Z: 683 – 740
Yield Strength (MPa) — 0.2% offset	ASTM E8	X: 309 – 316 Y: 306 – 319 Z: 308 – 353
Elongation (%)	ASTM E8	X: 42 – 48 Y: 45 – 49 Z: 30 – 43
Elastic Modulus (GPa)	ASTM E8	X: 163 – 210 Y: 169 – 197 Z: 178 – 196
Hardness (HRC)	ASTM E18	36.5
Impact (J)	ASTM E23	30 – 42
Poisson's Ratio	ASTM E132-17	0.297
Relative Density (%)		99
Density (g/cc)		8.37

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)