

Grade	Code	UNS	Nickel Alloys	
Inconel 625	Alloy 625 (2.4856)	N06625		

Nickel Alloy Properties

Alloy 625 is a nickel-chromium-molybdenum alloy with additional of niobium. This provides a high strength alloy without a strengthening heat treatment. Inconel 625 is especially resistant to pitting and crevice corrosion but also other severely corrosive environments. Service temperatures range from cryogenic to about 1000°C. High tensile, creep, and rupture strength together with outstanding fatigue and thermal-fatigue strength in addition to oxidation resistance and excellent weldability are characteristics of this alloy.

Chemical Composition (Inconel 625)

Ni %	Cr %	Co %	Mo %	Mn %	Si %	Al %	Ti %	Cu %	Fe %
Balance	20,00 -	1,00	8,00 –	0,50	0,50	0,40	0,40	0,50	5,00
	23,00	max	10,00	max.	max.	max.	max.	max.	max.

Mechanical Properties (Annealded)

Product Form	Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness[HB]	Density [g/cm ³]
Rod, Bar, Plate	414-655	827-1034	60-30	145-220	8,44

Suitable For

Inconel 625 is used in wellhead components, propellers & shafts, reactor core & control rod components, sour service applications, downhole equipment, seawater heat exchangers, sour gas pipelines, superheater tubing.



Remarks

Outstanding corrosion resistance,

High tensile, creep and rupture strength,

High fatigue strength in seawater,

Versatile – can be used to solve numerous design and application problems.

Specification

Inconel 625, Alloy 625, 2.4856, N06625

Norm

ASTM B443, B444, B446, B704, B705, B366, B751, B775, B829

AMS 5599, 5666, 5837, 5879, 5869, 5581

ISO 15156-3

NACE MR0175-3