

Alloy 625 / UNS N06625 / 2.4856

Alloy 625 / UNS N06625 / 2.4856 – High-Strength Corrosion-Resistant Nickel Alloy

Properties of Alloy 625 / UNS N06625 / 2.4856

Alloy 625 / UNS N06625 / 2.4856 is a low-carbon nickel-chromium-molybdenum-niobium alloy known for excellent fatigue strength and resistance to stress corrosion cracking when exposed to chloride containing media. Good weldability.

Key Features:

- Excellent resistance to pitting, crevice corrosion, and intergranular attack
- High strength and toughness across a wide temperature range
- Good resistance to mineral acids (nitric, phosphoric, sulfuric, hydrochloric)
- Resistance to alkalis and organic acids
- Good weldability and formability

Applications of Alloy 625 / UNS N06625 / 2.4856

Alloy 625 / UNS N06625 / 2.4856 typical applications include:

- Chemical processing: reactors, heat exchangers, piping
- Offshore and marine engineering
- Environmental technology: flue gas scrubbers, waste incineration
- Aerospace and power generation

Specification Overview

Material number	2.4856
Alloy	625
EN designation	NiCr22Mo9Nb
UNS	N06625
Böhler designation	L625
Semi-finished products (strip, sheet, pipe, rod)	DIN 17744 / DIN 17752 / DIN EN 10228
Forged or rolled components	ASTM B 446 / ASME SB 446 / ASTM B564 / DIN 17752/ VdTÜV 499 / AMS 5666
Sheets / strips	ASTM B 443 / ASME SB 443 / DIN 17750 / VdTÜV 499 / AMS 5599
Wire	DIN 17753 / DIN EN 10088-3
Pipe / Tube	ASTM B619 / ASME SB619

Physical Properties

Property	Value
Material Density	8.44 g/cm ³
Melting Point	1290 – 1350°C
Thermal Conductivity (20 °C)	12.4 W/(m·K)
Electrical Resistivity	1.25 Ω·mm ² /m
Thermal Expansion (20–100 °C)	12.5 × 10 ⁻⁶ /K

Mechanical Properties (Solution Annealed)

Parameter	Typical Value
Tensile Strength Rm	≥ 760 MPa
Yield Strength Rp0.2	≥ 380 MPa
Elongation A5	≥ 35%

Chemical Composition (% by Weight)

Element Content acc. to VdTÜV Werkstoffblatt 499

C	Si	Mn	P	S	Co	Cr	Fe
≤ 0.030	≤ 0.40	≤ 0.50	≤ 0.010	≤ 0.010	≤ 1.0	21.0 – 23.0	≤ 5.0
Mo	Ni	Ti	Al	Nb + Al			
8.0 – 10.0	Balance	≤ 0.40	≤ 0.40	3.2 – 3.8			

Product Portfolio:

Our company offers Alloy 625 / UNS N06625 / 2.4856 in a wide range of forms and processing stages:

- Sheets and Plates – hot/cold rolled, solution annealed
- Bars and Rods – forged or rolled, pickled
- Tubes and Pipes – seamless or welded
- Wire – drawn or rolled
- Fittings and Flanges
- Forged and Machined Components – per drawing or specification

All data without guarantee, provided for information only.

