

Alloy C4 / UNS N06455 / 2.4610

Alloy C4 / UNS N06455 / 2.4610 – high corrosion resistance

Properties of Alloy C4 / UNS N06455 / 2.4610

Alloy C4 / UNS N06455 / 2.4610 is a low-carbon, austenitic nickel-molybdenum-chromium alloy engineered for exceptional corrosion resistance. It demonstrates:

Key Features:

- Outstanding resistance to pitting, crevice, and stress corrosion cracking
- High stability against intergranular corrosion, even after welding
- Excellent performance in reducing environments, including hot contaminated acids
- Good weldability, typically used in the as-welded condition without post-weld heat treatment strength even under extreme conditions

Applications of Alloy C4 / UNS N06455 / 2.4610

Alloy C4 / UNS N06455 / 2.4610 is widely used in industries requiring high corrosion resistance under aggressive chemical conditions.

- Chemical processing: heat exchangers, reactors, piping systems
- Environmental engineering: flue gas desulfurization, waste incineration
- Fertilizer and pesticide production
- Acid storage and transport vessels
- Pharmaceutical and petrochemical equipment

Specification Overview

Material number	2.4610
Alloy	C4
EN designation	NiMo16Cr16Ti
UNS	N06455
Böhler designation	L004
Semi-finished products (strip, sheet, pipe, rod)	DIN 17744 / DIN 17752
Forged or rolled components	ASTM B 574 / ASME SB 574 / DIN 17752 / VdTÜV 424
Sheets / strips	ASTM B 575 / ASME SB 575 / DIN 17751 / VdTÜV 424
Wire	DIN 17753
Pipe / Tube	ASTM B 619 / ASME SB 619 / ASTM B 622 / ASME SB 622 / ASTM B 626 / ASME SB 626

Physical Properties

Property	Value
Material Density	8.64 g/cm ³
Melting Point	1335 – 1380°C
Thermal Conductivity (20 °C)	10.1 W/(m·K)
Electrical Resistivity	1.24 -1.25 Ω·mm ² /m
Thermal Expansion (20–100 °C)	10.8 × 10 ⁻⁶ /K

Mechanical Properties (Solution Annealed)

Parameter	Typical Value
Tensile Strength Rm	≥ 700MPa
Yield Strength Rp0.2	≥ 305MPa
Elongation A5	≥ 40%

Chemical Composition (% by Weight)

Element Content acc. to VdTÜV Werkstoffblatt 424

C	Si	Mn	P	S	Co	Cr	Fe
≤ 0.009	≤ 0.050	≤ 1.00	≤ 0.020	≤ 0.010	≤ 2.00	14.00 – 17.50	≤ 3.0
Mo	Ni	Ti					
14.00 – 17.00	REM	≤ 0.70					

Product Portfolio:

Our company offers Alloy C4 / UNS N06455 / 2.4610 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.

