

AN ISO 9001:2015 CO.

ASTM B574 HASTELLOY C22

HEX BOLTS | STUDS | HEX NUTS | WASHERS
UNS N06022 | WERKSTOFF 2.4602 | NICKEL ALLOY



CHEMICAL COMPOSITION (Typical %)

Element	Min.	Max.
Nickel (Ni)	Balance	Balance
Chromium (Cr)	20.0	22.5
Molybdenum (Mo)	12.5	14.5
Iron (Fe)	2.0	6.0
Tungsten (W)	2.5	3.5
Cobalt (Co)	–	2.5
Manganese (Mn)	–	0.50
Silicon (Si)	–	0.08
Carbon (C)	–	0.015
Vanadium (V)	–	0.35
Phosphorus (P)	–	0.02
Sulfur (S)	–	0.02

MECHANICAL PROPERTIES (ASTM B574)

Property	Value (Solution Annealed)
Tensile Strength	≥ 690 MPa (100 ksi)
Yield Strength (0.2% Offset)	≥ 310 MPa (45 ksi)
Elongation	≥ 45 %
Hardness (Typical)	≤ 100 HRB

HEAT TREATMENT

Process	Details
Solution Annealing Temperature	1120 °C (2050 °F)
Quenching Process	Rapid cooling in water or by air blast

MATERIAL IDENTIFICATION

Alloy	Hastelloy C22
UNS	N06022
Werkstoff No.	2.4602
Specification	ASTM B574 (Rod, Bar, Wire, Forgings)
Product Form	Hex Bolts, Studs, Hex Nuts, Washers (as per drawings and standards)

3 MAIN FEATURES OF HASTELLOY C22



EXCELLENT CORROSION RESISTANCE
High resistance to pitting, crevice corrosion and chloride environments.



WIDE CHEMICAL COMPATIBILITY
Performs well in both oxidizing and reducing environments with strong acids.



HIGH RELIABILITY & LONG SERVICE LIFE
Ideal for critical chemical, marine and offshore applications.

TYPICAL APPLICATIONS

- Chemical Processing Plants
- Oil & Gas Industry
- Offshore & Marine Equipment
- Pollution Control Systems
- Pulp & Paper Industry
- Pharmaceutical Industry
- Desalination Plants
- Heat Exchangers
- Acid Handling Systems
- Power Generation Plants
- Severe Corrosive Environments

AVAILABLE FASTENERS



HEX BOLTS



STUDS



HEX NUTS



WASHERS