Hastelloy C-4

Hastelloy C-4 is an austenitic low-carbon nickel-chromium-molybdenum alloy. It shows greater stability during extended exposure to temperatures in the rang 650~1040℃ and improved resistance to intergranular corrosion. It is characterized by:

- very good resistance to a wide range of corrosive media, particularly reducing conditions
- excellent resistance to localized corrosion in halide media

Chemical Composition, %

element	Ni	Mo	Cr	Fe	Co	Ti	C	Mn	Si	P	S
min.	bal.	14.0	14.0								
max.		17.0	18.0	3.0	2.0	0.70	0.015	1.0	0.08	0.04	0.03

Chemical Composition according to ASTM. Some compositional limits of other specifications may vary slightly.

Designation and standards

National Standards	Material designation	Chemical composition	Forgings	Rod and bar	Plate and sheet	Strip	Seamless tube
ASTM ASME	UNS N06455			B574 SB574	B575 SB575	B575 SB575	B622 SB622
DIN	2.4610 NiMo16Cr16Ti	DIN 17744		DIN 17752	DIN 17750	DIN 17750	DIN 17751
GB/T	NS3305, NS335	GB/T 15007		GB/T 15008	GB/T 15009 GB/T 15010		

Density 8.64g/cm^3

Corrosion resistance

- exceptionally resistant to a variety of chemical media, incl. reducing contaminated mineral acids such as phosphoric, hydrochloric and sulphuric acids, chlorides and organic and inorganic chloride-contaminated media
- excellent resistance to chloride-induced stress-corrosion cracking, even in hot chloride solutions

Applications

Hastelloy C-4 finds wide applications in the chemical industry in a wide range of chemical process environments at ambient and higher tmperatures.

Typical applications are:

- flue gas desulphurization equipment
- pickling baths and acid regeneration
- acetic acid production and agrochemicals production
- titanium dioxide production (chloride route)
- electrolytic galvanizing rolls