

## HASTEALLOY B3

# NICKEL ALLOY

HIGH TEMPERATURE RESISTING ALLOY

HASTEALLOY B3 covers nickel alloy forgings. These alloys are classified into different grades according to their chemical composition. HASTEALLOY B3 covers Ni-Mo alloy UNS N10675. HASTELLOY B-3 alloy (UNS N10675) is an excellent resistance alloy to hydrochloric acid at all concentrations and temperatures. It also withstands sulfuric, acetic, formic and phosphoric acids, and other nonoxidizing media. B-3 alloy has a special chemistry designed to achieve a level of thermal stability greatly superior to that of its predecessors. The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

### Chemical Properties

C	Mn	P	S	Si	Cr	Mo	Ni	Cu	V	Cb	Ti
0.01 Max	3.0 Max	0.030 Max	0.010 Max	0.10 Max	1.0-3.0	27.0-32.0	65.0 Min	0.20 Max	0.20 Max	0.20 Max	0.20 Max

Al	W	Co	Ta	Fe	Zr	Ni+Mo
0.50 Max	3.0 Max	3.0 Max	0.20 Max	1.0-3.0	0.10 Max	94.0-98.0

### Mechanical Properties

Yield strength	Tensile strength	Elongation
Min 0.2% Mpa	Min Mpa	Min %
350	760	40

### Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal			Thermal Conductivity		Specific Heat	Electrical Resistivity
(Kg/m <sup>3</sup> )	(Gpa)	Expansion(µm/m/°C)			(W/m.K)		0-100°C	(nΩ.m)
9.22	216	5.7	6.1	6.6	11.2	19.6	373	53.8

### Heat Treatment

Solution Annealed @ 1177°C & Rapidly Liquid Quenched

### Equivalent Designation

UNS N10675  
W.Nr. 2.4600

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