

## HASTEALLOY B2

# NICKEL ALLOY

HIGH TEMPERATURE RESISTING ALLOY

HASTEALLOY B2 covers nickel alloy forgings. These alloys are classified into different grades according to their chemical composition. HASTEALLOY B2 covers UNS N10665. Alloy B-2 is a nickel-molybdenum alloy with significant resistance to reducing environments, such as hydrogen chloride gas and sulfuric, acetic and phosphoric acids. Alloy B-2 provides resistance to pure sulfuric acid and a number of non-oxidizing acids. The alloy should not be used in oxidizing media or where oxidizing contaminants are available in reducing media. Premature failure may occur if B-2 is used where iron or copper is present in a system containing hydrochloric acid. Alloy B-2 also has excellent resistance to pitting and stress corrosion cracking. The values stated in inch-pound units are to be regarded as standard.

### Chemical Properties

C	Mn	P	S	Si	Cr	Mo	Co	Fe	Ni
0.02 Max	1.0 Max	0.04 Max	0.03 Max	0.10 Max	1.0 Max	26.0-30.0	1.00 Max	2.0 Max	BALANCE

### 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	217	10.3	11.2	11.7	11.1	18.7	456	1.46

### Heat Treatment

Solution Annealed @ 1177°C & Rapidly Liquid Quenched

### Equivalent Designation

UNS N10665  
W.Nr. 2.4617

CUSTOMER ASSISTANCE : [customer@TorqBolt.com](mailto:customer@TorqBolt.com)

#4/217, Deccan Bank Bldg,  
R. R. Roy Road, Mumbai – 400 004,  
Maharashtra, INDIA

Email: [info@TorqBolt.com](mailto:info@TorqBolt.com)  
Web: [www.TorqBolt.com](http://www.TorqBolt.com)

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