

HASTELLOY B-2 is a nickel based alloy particularly suited for handling reducing acids at high concentrations and temperatures. The alloy resists formation of grain boundary carbides in the weld HAZ, making it suitable for most chemical process conditions in the as-welded condition.

Because this alloy contains no significant chromium addition it should NOT be used in oxidizing media or in presence of oxidizing salts, such as ferric or cupric salts. The latter may form when iron or copper is present in a system containing hydrochloric acid. Likewise HASTELLOY B-2 does not withstand wet chlorine gas or hypochlorite bleach.

HASTELLOY B-2 should not be exposed to temperatures in the 1000 - 1600°F range because of severe loss of ductility. In a vacuum HASTELLOY B-2 may be used from 1600°F to substantially higher temperatures.

	ASME:	SB-333, SB-	335, SB-6	19, SB-622,	SB-626, SB-	366 NACE	: MR0175	020, 0 000				
mical Composition %											-	
	MIN	NI	Cr	M0	Mn	21	C	2	Р 	0	Fe	
	MAX	balance	1.0	30.0	1.0	0.1	0.02	0.03	0.04	1.0	2.0	
ures	• Resi • With • Exce	 Resists hydrochloric acid at all concentrations and temperatures Withstands wet HCl gas, sulfuric, acetic and phosphoric acids Excellent resistance to pitting and to stress corrosion cracking 										
lications	• Acet • Metl	ic acid proo nyl methac	duction, ii rylate pro	nitial phase duction wit	in presenc h hot 98%	e of iodide H ₂ SO ₄	catalyst					
	• Prod • Buta	 Production of herbicides, insecticides, ethylene glycol and ethyl benzene Butane isomerization to produce high octane gasoline 										
	• Resi	sts corrosic	on from a	ntimony chl	oride							
Physical Properties	Density	Density: 0.333 lb/in ³ Electrical Resistivity: 824 Ohm-circ mil/ft										
	Tempe	rature, °F		32	212		392	572	752		932	
	Coeffic in/in°F	ient* of Therm × 10-6	al Expansion,	-	6.0		6.0	6.2	6.4		6.5	
	Thermo Btu ● f	ıl Conductivity t∕ft² ● hr ● °F		6.4	7.1		7.7	8.4	9.2		10.0	
	* 70°F	to indicated i	emperature.	-	·			·	·			
hamiaal Descention			utu Chas	4								
nunical rroperiles	Averag	je tenstie d	ala, shee					Minimum	Minimum Specified			
	Illtima	te Tensile Stre	nath ksi	130								
	Uniniu		igin, kai	59				51				
	0.2%	Vield Strenath	1 ksi	59				51				
	0.2% ^v Elonar	Yield Strength tion. %	ı, ksi	59 60				51				





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