

HASTELLOY® HYBRID-BC1® alloy

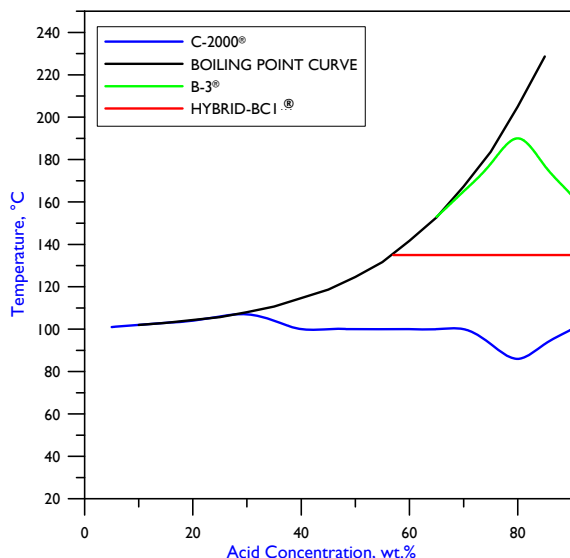
For those who need a nickel alloy with superior resistance to hydrochloric and sulfuric acids, without the drawbacks of the Ni-Mo and Zr materials, we are pleased to announce the development of HASTELLOY® HYBRID-BC1® alloy (Ni-22Mo-15Cr). Its resistance to these key chemicals is much greater than that of the popular Ni-Cr-Mo (C-type) alloys, yet it shares with them outstanding resistance to pitting and crevice attack in chloride salt solutions, and even withstands high levels of oxidizing impurities that the Ni-Mo alloys cannot tolerate. Numerous wrought product forms are available.

Resistance to Crevice Corrosion in 6% Ferric Chloride + 1% Hydrochloric Acid

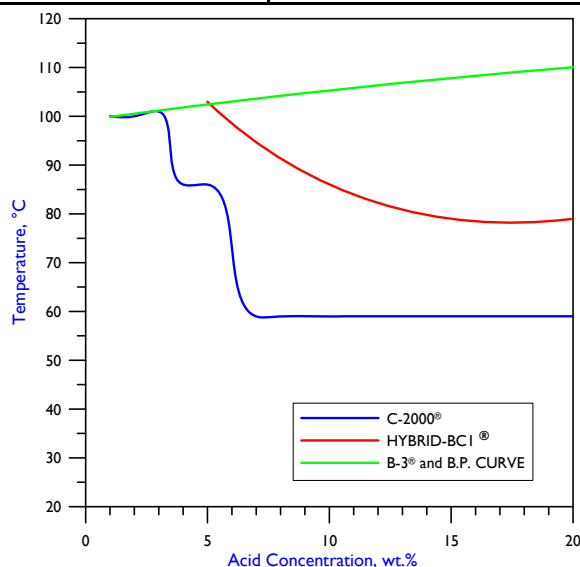
80 deg. C Crevice Assembly Attached	HYBRID-BC1®	B-3®	C-2000®
	0.04 mm/y No Crevice Corrosion	30.40 mm/y Gross Attack	<0.01 mm/y Crevice Corrosion

Resistance to Hot 2.5% Hydrochloric Acid

121 deg. C	HYBRID-BC1®	B-3®	C-2000®
Oxygen Purged	0.46 mm/y	4.58 mm/y	0.02 mm/y
Nitrogen Purged	0.55 mm/y	<0.01 mm/y	3.99 mm/y



Comparison of 0.5 mm/y Lines for B-3®, C-2000®, and HYBRID-BC1® Alloys in Sulfuric Acid



Comparison of 0.5 mm/y Lines for B-3®, C-2000®, and HYBRID-BC1® Alloys in Hydrochloric Acid

Available Forms and Sizes

Sheet	0.6, 1.6, & 3.2 mm (0.024, 0.063, & 0.125 in)
Plate	6.4, 12.7, & 38.1 mm (0.25, 0.50, & 1.50 in)
Bar	25.4 & 63.5 mm (1.0 & 2.5 in)
Wire	3.2 mm (0.125 in) Straight Lengths & 1.1 mm (0.045 in) Layer Wound
Pipe	Available on Request
Tube	Available on Request

Material for small trial applications and welded test coupons are available free of charge from Dr. Paul Manning at 765-456-6099 or pmanning@haynesintl.com.