

VBC Alloy 4777				
MBF 20, Nicrobraz LM, Amdry 770, Icronibsi-7				
Designation	4777		Issued: Feb/17	MSRR: 9500/97
			Revision: 02	AMS: 4777
Cross Reference/ Conformance Specifications	AMS 4777 BS EN 1044 NI102 AWS A5.8 BNi-2 MSRR 9500/97 General Electric B50TF204 PWA 1183		BS EN ISO 17672:2010 Ni 620 UNS Number N99620 ISO 3677 B-Ni82CrSiBFe-970/1000 JIS BNi-2 OMat 3/181 - 3/181B - 3/181C	
Description	The most widely used of the Nickel braze alloys. It has excellent oxidation and corrosion resistance properties.			
Temperatures	Solidus: 970°C	Liquidus: 1000°C	Brazing Range: 1010-1175°C (Recommended: 1040-1050°C)	
Materials To Be Brazed, Applications and Advice	Inconels, stainless steels, honeycomb, Hastelloys, diamond compounds and many more. It is used in high temperature high stress engine components, jet engine diffuser components, food-handling equipment, heat exchangers and carbide tools. It has a narrow melting range and good flow. It contains silicon and boron as melting point depressants. Due to the boron content, it is not suitable for nuclear core applications. Gap size 0.001" to 0.005", better results with smaller gap. Recommended atmosphere: Vacuum, Argon, pure dry Hydrogen.			
Chemical Composition WT%	Nickel – Bal		Iron – 3%	
	Chromium – 7%		Controlled impurities	
	Silicon – 4.5%			
	Boron – 3.13%			
	Phosphorous – 0.01%			
Physical Properties	Carbon – 0.03%			
	Density 7.46 g/cm ³ (Mg/m ³)			
Forms of Supply	Foil Powder Paste Wire Tape Preforms Straight Length - Strips, preforms, rings (borided)			
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