

## VBC Alloy 0213 Hastelloy W

Designation and Description	GTAW Solid Welding Wire Nickel Base	Issued: 07/2015	MSRR: 9500/213	AMS: 5786 G
		Revision: 01		
Cross Reference/ Conformance Specification	MSRR 9500/213 AMS 5786 G OMat 3/333 BS EN ISO 18274:2010 NiMo25Cr5Fe5/Ni 1004	AWS A5.14/5.14M:2005 ERNiMo-3 UNS Number N10004 JIS YNiMo-3		
Metallurgical Background Information	Hastelloy W is surface abraded to remove all process contaminants. This production route ensures that consistent surface physical purity for the welding wire is maintained. Hastelloy W filler wire is a single-phase Ni-Mo high temperature alloy and possesses very good weldability.			
Materials To Be Welded, Applications and Advice	Hastelloy W is used to join dissimilar metal combinations including A286 (AMS 6532), HS25 (AMS 5796). It is used for combustor repair and manufacture and for welding turbine blade to rotor hubs: shroud Rings.  Used to repair difficult-to-weld high temperature nickel alloys. AMS 5755: RPS184 Group 11 to Group 5 and 63. Use pure argon gas shielding and ultra clean conditions.			
Wire Chemistry WT% (as per AMS)	Carbon – 0.12% max	Chromium – 4.0 – 6.0%		
	Manganese – 1.0% max	Molybdenum – 23.0 – 26.0%		
	Silicon – 1.0% max	Iron – 4.0 – 7.0%		
	Phosphorous – 0.04% max	Cobalt – 2.5% max		
	Sulphur – 0.03% max	Vanadium – 0.6% max		
		Nickel - Balance		
Weld Properties	Density 9.00gm/cm <sup>3</sup>			
Sizes and Forms of Supply	Straight Length: 2.2 kg Packs 36" / 914mm lengths Wide range of diameters Flag tagged	Spooled Wire: Precision layer wound with controlled cast and helix 300mm diameter standard Wide range of diameters		

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