



VBC Alloy 0045 2319

Designation and Description	GTAW and GMAW Solid Welding Wire Aluminium Base	Issued: Feb/2016 Revision: 01	MSRR: 9500/45	AMS:4191J
Cross Reference/Conformance Specification	MSRR 9500/45 AMS 4191 J	Omat 3/264 AA2319		
Metallurgical Background Information	<p>Alloy 2319 is a solid welding wire produced conventionally and the surface cleaned to remove standard metal working lubricants.</p> <p>Alloy 2319 is one of the few Al-Cu alloy filler metals available. This heat treatable alloy is used to fabricate many Al-Cu casting alloys, which are then, subject to PWHT</p>			
Materials To Be Welded, Applications and Advice	<p>Good stress corrosion cracking resistance, high temperature strength Used in structural and aircraft applications Welds: 2219, 201, 206, 224, 2014, 2036, 2693 (2319 USA), H15, L119 Al-Cu casting alloy Not to be used for welding 5xxx series alloys</p>			
Wire Chemistry WT% (as per AWS)	Silicon – 0.20% max		Titanium – 0.10 – 0.20%	
	Iron – 0.30% max		Beryllium – 0.0008% max	
	Copper – 5.8 – 6.8%		Vanadium – 0.05 – 0.15%	
	Manganese – 0.20 – 0.40%		Zirconium – 0.10 – 0.25%	
	Magnesium – 0.02%		Other elements (each) – 0.05% max	
	Zinc – 0.10%		Other elements (total) – 0.15% max	
			Aluminium – Balance	
Weld Properties	Melting range (approx.) 543°C - 643°C Hardness range 122 – 153 HV		Density 2.77gm/cc	
Sizes and Forms of Supply	Straight Length: 2.2 kg Packs 36" / 914mm lengths Flag tagged (Double tagging and other lengths on request)		Spooled Wire: Precision layer wound with controlled cast and helix 300mm diameter standard	
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