

VBC Alloy 0038 5356

Designation and Description	GTAW and GMAW Solid Welding Wire Aluminium Base		Issued: Mar/2014	MSRR: 9500/38	AMS: N/A
			Revision: 01		
Cross Reference/ Conformance Specification	MSRR 9500/38 OMat 3/61 3/61A BS 2901-4:1990 5356 W N° 3.35566 N6, NG6		BS EN ISO 18273:2004 AlMg5Cr(A) Al5356 AWS A5.10/A5.10M:1999 ER5356 R5356 UNS Number A95356 AA5356		
Metallurgical Background Information	Alloy 5356 is a solid welding wire produced conventionally and then surface cleaned to remove standard metal working lubricants. Alloy 5356 is an Al-5Mg-Mn (Cr Ti) heat treatable alloy used for welding Al-Mg alloys of similar composition. 5356 is increasingly used in preference to type 5056, since it contains Ti for grain refining. (5056 tends only to be available for rivet stock). 5356 is a stiffer wire than 4043 and possesses better feeding				
Materials To Be Welded, Applications and Advice	5154, 5050, 5052, 5454, 525, 5005, 5086, 5083, 6061, 6063. Better post-anodising colour match, especially with 6000 series base alloys. 5356 is used as an alternative to 4043 for some applications, since it produces higher shear strength and is a preferred match for the high Mg alloys such as 5083 and 5086. Note that for service above ~65°C, 4043 is the preferred filler alloy.				
Wire Chemistry WT% (as per AMS)	Silicon – 0.4% max		Zinc – 0.20% max		
	Iron – 0.5% max		Beryllium – 0.0008%		
	Copper – 0.10% max		Manganese + Chromium – 0.1 - 0.6%		
	Manganese – 0.1-0.6%		Chromium – 0.20% max		
	Magnesium – 4.5-5.6%		Aluminium - Balance		
	Titanium – 0.205 max				
	See MSRR/9500 Iss 23 for alternative chemistry				
Weld Properties	Melting range (approx.) 571°C - 635°C				
Sizes and Forms of Supply	Straight Length: 2.5 kg Packs 36" / 914mm lengths A range of diameters available Flag tagged		Spoiled Wire: Precision layer wound and with controlled cast and helix 300mm diameter standard A range of diameters available		

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