



## VBC Alloy 0078 Ti 6Al-4V ELI

Designation and Description	<b>Ti 6Al-4V ELI</b>	Issued: June/2018 Revision: 00	MSRR: 9500/78	AMS:4956			
Cross Reference/ Conformance Specification	MSRR 9500/78 AMS 4956 Omat 3/145A	AWS A5.16 ER Ti-5 ELI AWS A5.16 ER Ti-23 UNS R56402					
Metallurgical Background Information	Alloy 6Al-4V Ti ELI is a solid welding filler wire produced conventionally and then especially surface treated to remove alpha case and cleaned of metal working lubricants.  6Al-4V Ti ELI is a duplex, alpha-beta alloy filler metal used for welding alloys of similar composition. This special version of 6-4Ti has controlled low levels of interstitial and residual elements, thus conferring improved toughness, ductility and corrosion resistance. Strength is reduced.						
Materials To Be Welded, Applications and Advice	AMS 4965, 4928, 4967, 4985, 4991, 4934, 4935, 4920, 4905, 4932, 4911. MSRR 8610, 861, 9629, 8632. ASTM Grade 5 - L65, 348, 367, 381, 467, 468. BSTA 11, 12, 28, 56. DTD 5363						
Wire Chemistry WT% (as per AWS)	Aluminium	5.5	-	6.75	Nitrogen	-	0.012
	Vanadium	3.5	-	4.5	Yttrium	-	0.005
	Iron	-	-	0.15	Other Elements	-	0.03 each
	Oxygen	-	-	0.08	Other Elements	-	0.1 total
	Carbon	-	-	0.03	Titanium	Balance	
Weld Properties	Melting range (approx) 1604 - 1671°C Hardness 330 - 350HV			Density 4.54gm/cc			
Sizes and Forms of Supply	Straight Length: 2.2 kg Packs 36" / 914mm lengths 18"/457mm 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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