+44 (0) 1509218008
sales@vbcgroup.com
vbcgroup.com

Product Datasheet

VBC Alloy 0073 Ti-6Al-4V Welding Wire

Description: Ti-6Al-4V Titanium Welding Wire

Specification / Cross Reference: AMS 4954 K, MSRR 9500/73, OMAT 3/145A, MSRR 8632

AWS A5.A6 ER Ti 6-Al-4V, AWS A5.16 ER Ti-5, UNS R56400

Approvals: MSRR 9500/73, OMAT 3/145A

Metallurgical Background Information

VBC Alloy 0073 Ti-6Al-4V (Grade 5) is a titanium alloy welding wire. It is the most widely used titanium alloy welding wire, providing an excellent balance of high strength, corrosion resistance and weldability. It is a duplex, alpha-beta alloy filler metal and is used for welding Ti-6Al-4V components and alloys of a similar composition. Ti-6Al-4V (Grade 5) is widely used in turbine engine components – fan and compressor sections, and for titanium tubular components. VBC Alloy 0073 6Al-4V Ti is specially cleaned to remove metal oxides and trace contaminants.

Ti6Al4V ELI (Grade 23) is a high-purity 'Extra Low Interstitial' grade of Ti-6Al-4V and is available as VBC Alloy 0078.

Melting range (approx) 1604 - 1671°C Density 4.54gm/cc Hardness 330 – 390 HV

Composition (wt %)

Titanium	Balance	Nitrogen	0.03% max
Aluminium	5.50 – 6.75%	Yttrium	0.005% max
Vanadium	3.50 – 4.50%	Hydrogen	0.015% max
Iron	0.22% max	Other Elements (each)	0.05%
Oxygen	0.12 – 0.18%	Other Elements (total)	0.20%
Carbon	0.05% max		

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.

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 available

Vacuum Brazing Consultants Limited t/a VBC Group cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products will be used. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is given in good faith, being based on the latest information available to VBC Group and is, to the best of VBC Group's knowledge and belief, accurate and reliable at the time of preparation. However, no representation, warranty or guarantee is made as to the accuracy or completeness of the information and VBC Group assumes no responsibility therefore and disclaims any liability for any loss, damage or injury howsoever arising (including in respect of any claim brought by any third party) incurred using this information. The product is supplied on the condition that the user accepts responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Freedom from patent or any other proprietary rights of any third party must not be assumed.