

VBC Alloy 0070 CP Ti – Grade 2				
Designation and Description	CP Ti – Grade 2	Issued: Aug/2015	MSRR: 9500/70	AMS: 4951H
		Revision: 01		
Cross Reference/ Conformance Specification	MSRR 9500/70 AMS 4951 Omat 366A	AWS A5.16 ER Ti-2 UNS R50550 DIN 3.7035		
Metallurgical Background Information	<p>Alloy CP-Ti is a solid welding wire produced conventionally and the surface cleaned to remove standard metal working lubricants and oxides.</p> <p>CP-Ti commercial purity Titanium is a Ti-O<sub>2</sub> alloy designed for welding similar alloys. It is environmentally packaged for extra shelf life.</p> <p>CP-Ti has an alpha CPH structure. It has excellent weld ability and gives good weld ductility.</p>			
Materials To Be Welded, Applications and Advice	<p>AMS 4941, 4942, 4901, 4921, 4900, 4902 ASTM B348, B265, 337, 338, 467, 468, 367 MSRR 8607, 8608, 8609, 8620</p> <p>Widely used to fabricate all CP-Ti Grades. Also used to fabricate other Ti alloy grades where ductility is more important than joint strength. Avoid Iron contamination. Thin sheet butt welds must have a very clean interface.</p> <p>CP-Ti can be used to join 6-4Ti to Ti-2.5Cu</p> <p>Pure argon gas shielding and ultra clean weldment conditions are required</p> <p>A trailing gas shield and underside shielding is necessary</p>			
Wire Chemistry WT% (as per AMS)	Iron – 0.12% max		Yttrium – 0.005% max	
	Oxygen – 0.08 – 0.16%		Other Elements Each – 0.05% max	
	Carbon – 0.03% max		Other Elements total – 0.20% max	
	Nitrogen – 0.015% max		Titanium – Balance	
	Hydrogen – 0.005% max			
Weld Properties	Melting range (approx.) 1660°C Hardness 57 HV		Density 4.51gm/cc	
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	
<p>Disclaimer: All information regarding our products is based on applied experience and extensive research work. We provide these technical data in good faith that they are accurate; this does not exempt the user from the obligation to check the information contained herein, especially if the application and process has not been expressly approved by us in writing. We make no guarantees or warranties (express or implied) about the contents of this datasheet. Any changes to processes must be approved by your organisations own quality department. VBC cannot be held responsible for any errors, omissions or inaccuracies published. We may change this datasheet from time to time without notice or obligation to the users. No part of this datasheet or any of its contents may be reproduced, copied, modified or adapted, without the prior written consent of VBC Group</p>				