



UNITED STATES WELDING CORPORATION

<p align="center">USW ALLOY DESIGNATION AND BRIEF DESCRIPTION</p>	<p align="center">6-2-4-2 Ti</p> <p align="center">GTAW SOLID BARE WELDING WIRE TITANIUM BASE</p>	<p align="center">ISO 9001 AS 9100</p>	<p align="center">DATA SHEET 4952</p>																																																						
<p align="center">CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</p>	<p>AMS 4975 6 Al 2 Sn 4 Zr 2 Mo Ti AMS 4952 MSRR9500/74 MSRR8661 UNS R54620</p>																																																								
<p align="center">METALLURGICAL BACKGROUND INFORMATION</p>	<p>ALLOY 6-2-4-2 Ti is a solid welding wire produced conventionally and then surface cleaned to remove standard metal working lubricants.</p> <p>This alloy is an alpha-beta high temperature, heat-treatable material used in gas turbine component manufacture. The beta content is low, giving good weldability.</p>																																																								
<p align="center">MATERIALS TO BE WELDED APPLICATION AND ADVICE</p>	<p>AMS 4975, 4976, 4919, 4981.</p> <p>Pure argon gas shielding and ultra clean weldment conditions are required. A trailing gas shield and underside shielding is necessary..</p>																																																								
<p align="center">WIRE CHEMISTRY WT%</p>	<table border="0"> <tr> <td>Aluminum</td> <td>5.50</td> <td>6.50</td> <td>Nitrogen</td> <td>-</td> <td>0.040 (400ppm)</td> </tr> <tr> <td>Zirconium</td> <td>3.60</td> <td>4.40</td> <td>Hydrogen</td> <td>-</td> <td>0.0125 (125ppm)</td> </tr> <tr> <td>Tin</td> <td>1.80</td> <td>2.20</td> <td>Oxygen</td> <td>-</td> <td>0.150 (1500 ppm)</td> </tr> <tr> <td>Molybdenum</td> <td>1.80</td> <td>2.20</td> <td>Yttrium</td> <td>-</td> <td>0.005 (50ppm)</td> </tr> <tr> <td>Silicon</td> <td>-</td> <td>0.10</td> <td>Other elements</td> <td>-</td> <td>0.10 each</td> </tr> <tr> <td>Carbon</td> <td>-</td> <td>0.04</td> <td>Other elements</td> <td>-</td> <td>0.40 total</td> </tr> <tr> <td>Copper</td> <td>-</td> <td>0.10</td> <td>Titanium</td> <td>-</td> <td>Balance</td> </tr> <tr> <td>Boron</td> <td>-</td> <td>0.0030</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Iron</td> <td>-</td> <td>0.10</td> <td></td> <td></td> <td></td> </tr> </table>			Aluminum	5.50	6.50	Nitrogen	-	0.040 (400ppm)	Zirconium	3.60	4.40	Hydrogen	-	0.0125 (125ppm)	Tin	1.80	2.20	Oxygen	-	0.150 (1500 ppm)	Molybdenum	1.80	2.20	Yttrium	-	0.005 (50ppm)	Silicon	-	0.10	Other elements	-	0.10 each	Carbon	-	0.04	Other elements	-	0.40 total	Copper	-	0.10	Titanium	-	Balance	Boron	-	0.0030				Iron	-	0.10			
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<p align="center">WELD PROPERTIES</p>	<p>Beta transus 1819° F Density 4.54 gm/cc Good weldability under controlled conditions.</p>																																																								
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<p align="center">PACKAGING</p>	<p>Sealed, air-evacuated, argon filled Vapor Barrier containers with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																																																								
<p>DFARS Compliant</p>		<p align="right">www.usweldingcorp.com</p>																																																							