



# UNITED STATES WELDING CORPORATION

<p align="center"><b>USW ALLOY DESIGNATION AND DESCRIPTION</b></p>	<p align="center"><b>TURBALOY<sup>®</sup> 6130</b> MC-GRADE <b>GTAW SOLID BARE WELDING WIRE</b> IRON BASE</p>	<p align="center">ISO 9001 AS 9100</p>	<p align="center"><b>DATA SHEET</b>  <b>6461</b></p>																																																
<p align="center"><b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b></p>	<table border="0"> <tr> <td>AMS 6461</td> <td>USWC 6461 (V)</td> </tr> <tr> <td>AMS 6462</td> <td>0.95Cr 0.2V (0.28 - 0.33C)</td> </tr> <tr> <td>UNS K13148</td> <td>MIL-R-5632 Type VI</td> </tr> <tr> <td>SAE 6130(VM)</td> <td></td> </tr> </table>			AMS 6461	USWC 6461 (V)	AMS 6462	0.95Cr 0.2V (0.28 - 0.33C)	UNS K13148	MIL-R-5632 Type VI	SAE 6130(VM)																																									
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<p align="center"><b>METALLURGICAL BACKGROUND INFORMATION</b></p>	<p>TURBALOY<sup>®</sup> 6130 is produced by vacuum induction melting and remelting techniques. The final wire is manufactured by special lubricant-free, roller-die forming followed by surface abrasion and cleaning processes.</p> <p>These manufacturing processes ensure consistent metallurgical integrity of the alloy with regard to control of trace elements and physical purity of the welding wire surface.</p> <p>TURBALOY<sup>®</sup> 6130 is a high strength low alloy steel filler metal used for fabricating alloys of similar composition. The high purity grade promotes excellent toughness and ductility. Ultra clean weldment conditions should be used for optimum weld properties. Brochures available.</p>																																																		
<p align="center"><b>MATERIALS TO BE WELDED AND APPLICATIONS</b></p>	<p>AMS 6448, 6455, UNS G61500.</p> <p>Repair welding and fabrication of:- Aircraft structural components, seat frames, steps, ground support equipment, and rocket motor cases.</p> <p>Use ultra clean weldment preparation. Refer to PH &amp; PWHT chart.</p>																																																		
<p align="center"><b>WIRE CHEMISTRY WT%</b></p>	<table border="0"> <tr> <td>Carbon</td> <td>0.28</td> <td>0.33</td> <td>Nickel</td> <td>-</td> <td>0.25</td> </tr> <tr> <td>Manganese</td> <td>0.60</td> <td>0.90</td> <td>Molybdenum</td> <td>-</td> <td>0.06</td> </tr> <tr> <td>Silicon</td> <td>0.15</td> <td>0.35</td> <td>Oxygen</td> <td>-</td> <td>0.0025 (25ppm)</td> </tr> <tr> <td>Sulfur</td> <td>-</td> <td>0.008</td> <td>Nitrogen</td> <td>-</td> <td>0.005 (50ppm)</td> </tr> <tr> <td>Phosphorus</td> <td>-</td> <td>0.008</td> <td>Hydrogen</td> <td>-</td> <td>0.0010 (10ppm)</td> </tr> <tr> <td>Sulfur &amp; Phosphorus</td> <td>-</td> <td>0.012</td> <td>Copper</td> <td>-</td> <td>0.35</td> </tr> <tr> <td>Chromium</td> <td>0.80</td> <td>1.10</td> <td>Iron</td> <td></td> <td>Balance</td> </tr> <tr> <td>Vanadium</td> <td>0.15</td> <td>0.25</td> <td></td> <td></td> <td></td> </tr> </table>			Carbon	0.28	0.33	Nickel	-	0.25	Manganese	0.60	0.90	Molybdenum	-	0.06	Silicon	0.15	0.35	Oxygen	-	0.0025 (25ppm)	Sulfur	-	0.008	Nitrogen	-	0.005 (50ppm)	Phosphorus	-	0.008	Hydrogen	-	0.0010 (10ppm)	Sulfur & Phosphorus	-	0.012	Copper	-	0.35	Chromium	0.80	1.10	Iron		Balance	Vanadium	0.15	0.25			
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<p align="center"><b>WELD PROPERTIES</b></p>	<p>CVN at 0°F, 16ft lbs <span style="float:right">Density 7.4gm/cc</span> (Minimum specification requirement: 15 ft lbs.)</p>																																																		
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<p align="center"><b>PACKAGING</b></p>	<p>Sealed, air-evacuated, argon purged Vapor Barrier envelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																																																		
<p>DFARS Compliant</p>		<p align="right">www.usweldingcorp.com</p>																																																	