



UNITED STATES WELDING CORPORATION

<p align="center">USW ALLOY DESIGNATION AND DESCRIPTION</p>	<p align="center">TURBALOY® 6130 MC-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE</p>	<p align="center">ISSUED JANUARY 2007</p>	<p align="center">DATA SHEET 6461 (18)</p>																																																
<p align="center">CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</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">METALLURGICAL BACKGROUND INFORMATION</p>	<p>TURBALOY® 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® 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">MATERIALS TO BE WELDED AND APPLICATIONS</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 & PWHT chart.</p>																																																		
<p align="center">WIRE CHEMISTRY WT%</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 & 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">SIZES AND FORMS AVAILABLE</p>	<table border="0"> <tr> <td align="center" colspan="2">STRAIGHT LENGTHS</td> <td align="center" colspan="2">SPOOLED WIRE</td> </tr> <tr> <td>5 lb. (2.2kg) packs</td> <td></td> <td>Precision layer wound, with controlled cast and helix</td> <td></td> </tr> <tr> <td>36" (914mm) lengths</td> <td></td> <td>12" (300mm) diameter spools standard</td> <td></td> </tr> <tr> <td>Flag tagged for traceability.</td> <td></td> <td>8" (200mm), 4" (100mm) and proprietary spool sizes</td> <td></td> </tr> <tr> <td>(Double tagging and other lengths on request)</td> <td></td> <td>on request.</td> <td></td> </tr> <tr> <td>Wide range of diameters.</td> <td></td> <td>Wide range of diameters and spool weights.</td> <td></td> </tr> </table>			STRAIGHT LENGTHS		SPOOLED WIRE		5 lb. (2.2kg) packs		Precision layer wound, with controlled cast and helix		36" (914mm) lengths		12" (300mm) diameter spools standard		Flag tagged for traceability.		8" (200mm), 4" (100mm) and proprietary spool sizes		(Double tagging and other lengths on request)		on request.		Wide range of diameters.		Wide range of diameters and spool weights.																									
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<p align="center">PACKAGING</p>	<p>Sealed, air-evacuated, argon purged Vapor Barrier envelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																																																		

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