



# UNITED STATES WELDING CORPORATION

<b>USW ALLOY DESIGNATION AND DESCRIPTION</b>	<b>TURBALOY® 1006</b> HQ-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE	<b>ISSUED</b> JANURAY 2007	<b>DATA SHEET</b>  <b>5030</b> (9)																					
		<b>REVISION NO.</b> A																						
<b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b>	AMS 5030 .06 Carbon, Maximum AISI 1006 CP Fe UNS K00606 USWC 5053 (C)																							
<b>METALLURGICAL BACKGROUND INFORMATION</b>	TURBALOY® 1006 undergoes a series of proprietary abrading and cleaning processes to remove all surface contaminants. These manufacturing processes ensure a consistent ultra-clean weld wire surface.  TURBALOY® 1006 commercially pure iron with up to 0.06% carbon. It is used where high ductility is required in welded joints of similar material.																							
<b>MATERIALS TO BE WELDED AND APPLICATIONS</b>	AISI 1006, 1008, 1010.  Armco iron sheet and plate.  AMS 5044, 5047, 5042, 5050, 5053.																							
<b>WIRE CHEMISTRY WT%</b>	<table border="0"> <tr><td>Carbon</td><td>0.06</td><td>max</td></tr> <tr><td>Silicon</td><td>0.08</td><td>max</td></tr> <tr><td>Manganese</td><td>0.50</td><td>max</td></tr> <tr><td>Sulfur</td><td>0.040</td><td>max</td></tr> <tr><td>Phosphorus</td><td>0.040</td><td>max</td></tr> <tr><td>Copper</td><td>0.35</td><td>max</td></tr> <tr><td>Iron</td><td>Balance</td><td></td></tr> </table>			Carbon	0.06	max	Silicon	0.08	max	Manganese	0.50	max	Sulfur	0.040	max	Phosphorus	0.040	max	Copper	0.35	max	Iron	Balance	
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<b>WELD PROPERTIES</b>	Melting range: ~ 2640°F min.  Hardness: 100 - 120 HV.																							
<b>SIZES AND FORMS AVAILABLE</b>	<table border="0"> <tr> <td style="text-align: center;"><b>STRAIGHT LENGTHS</b></td> <td style="text-align: center;"><b>SPOOLED WIRE</b></td> </tr> <tr> <td>5 lb. (2.2kg) packs</td> <td>Precision layer wound, with controlled cast and helix</td> </tr> <tr> <td>36" (914mm) lengths</td> <td>12" (300mm) diameter spools standard</td> </tr> <tr> <td>Flag tagged for traceability.</td> <td>8" (200mm), 4" (100mm) and proprietary spool sizes</td> </tr> <tr> <td>(Double tagging and other lengths on request)</td> <td>on request.</td> </tr> <tr> <td>Wide range of diameters.</td> <td>Wide range of diameters and spool weights.</td> </tr> </table>			<b>STRAIGHT LENGTHS</b>	<b>SPOOLED WIRE</b>	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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<b>PACKAGING</b>	Sealed, air-evacuated, argon purged Vapor Barrier envelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.																							

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