



UNITED STATES WELDING CORPORATION

<p align="center">USW ALLOY DESIGNATION AND DESCRIPTION</p>	<p align="center">TURBALOY® 347 HQ-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE</p>	<p align="center">ISO 9001 AS 9100</p>	<p align="center">DATA SHEET 5680</p>																																				
<p align="center">CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</p>	<p>18/8 (Cb) Stainless AMS 5680 MSRR9500/2</p> <p align="right">18.5Cr 11Ni 0.40Cb UNS S34781</p>																																						
<p align="center">METALLURGICAL BACKGROUND INFORMATION</p>	<p>TURBALOY® 347 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.</p> <p>TURBALOY® 347 is an austenitic stainless steel, stabilized with Columbium and containing a small consistent amount of delta ferrite and is used to weld stabilized and/or low carbon stainless alloys of similar composition.</p>																																						
<p align="center">MATERIALS TO BE WELDED AND APPLICATIONS</p>	<p>MSRR 6522, 6523, 6524, 6525, 6527. S126, S127, S128, 2S129, 2S130. AMS 5510, 5570, 5576, 5559, 5512, 5575, 5654. Manufacture and overhaul of gas turbine thin gauge components on 321 and 347 base alloys. Hot gas ducting and liners. To minimize hot cracking susceptibility, apply small stringer beads with convex profile using argon gas shielding, ultra clean conditions and minimum heat input.</p>																																						
<p align="center">WIRE CHEMISTRY WT%</p>	<table border="0"> <tr> <td>Carbon</td><td>-</td><td>0.07</td><td>Nickel</td><td>9.00</td><td>13.00</td></tr> <tr> <td>Manganese</td><td>1.00</td><td>2.00</td><td>Molybdenum</td><td>-</td><td>0.75</td></tr> <tr> <td>Silicon</td><td>0.30</td><td>1.00</td><td>Columbium</td><td>12 x C</td><td>-</td></tr> <tr> <td>Sulfur</td><td>-</td><td>.030</td><td>Copper</td><td>-</td><td>0.75</td></tr> <tr> <td>Phosphorus</td><td>-</td><td>.030</td><td>Iron</td><td></td><td>Balance</td></tr> <tr> <td>Chromium</td><td>17.00</td><td>20.00</td><td></td><td></td><td></td></tr> </table>			Carbon	-	0.07	Nickel	9.00	13.00	Manganese	1.00	2.00	Molybdenum	-	0.75	Silicon	0.30	1.00	Columbium	12 x C	-	Sulfur	-	.030	Copper	-	0.75	Phosphorus	-	.030	Iron		Balance	Chromium	17.00	20.00			
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<p align="center">WELD PROPERTIES</p>	<p align="center">Typical</p> <p>Tensile Strength 90 ksi 02% Yield Strength 37 ksi Elongation 50 % Hardness 150 Brinall</p> <p align="right">Density 7.89 gm/cc</p>																																						
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<p align="center">PACKAGING</p>	<p>Sealed polyethylene envelopes. (Desiccants optional)</p>																																						

DFARS Compliant

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