



# UNITED STATES WELDING CORPORATION

<p align="center"><b>USW ALLOY DESIGNATION AND DESCRIPTION</b></p>	<p align="center"><b>TURBALOY<sup>®</sup> 92</b>  <b>HQ-GRADE</b>  <b>GTAW SOLID BARE WELDING WIRE</b>  <b>NICKEL BASE</b></p>	<p align="center"><b>ISSUED</b>  <b>JANUARY 2007</b></p>	<p align="center"><b>DATA SHEET</b>  <b>5675</b>          (2)</p>																														
<p align="center"><b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b></p>	<p>MSRR 9500/9 (Commercial grade AWS A5.14 ENi Cr Fe-6)          AMS 5675 OMAT 314A          UNS N07092          FM 92          70Ni 15.5Cr 7Fe 3.0Ti 2.4Mn</p>																																
<p align="center"><b>METALLURGICAL BACKGROUND INFORMATION</b></p>	<p>TURBALOY<sup>®</sup> 92 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<sup>®</sup> 92 is a precipitation hardening Ni-Cr-Fe alloy.</p>																																
<p align="center"><b>MATERIALS TO BE WELDED AND APPLICATIONS</b></p>	<p>TURBALOY<sup>®</sup> 92 is used for dissimilar metal welding of austenitic and ferritic stainless alloys to each other and to high nickel alloys. Applications include Ni200 and M60 and M67 to stainless steels and joining stainless steels to carbon steels. TURBALOY<sup>®</sup> 92 is also suitable for 9% Ni steel fabrication.</p> <p>Use argon gas shielding and ultra clean conditions for welding.</p>																																
<p align="center"><b>WIRE CHEMISTRY WT%</b></p>	<table border="0"> <tr> <td>Carbon</td> <td>-</td> <td>0.08</td> <td>Nickel + Cobalt</td> <td>67.00</td> <td>-</td> </tr> <tr> <td>Manganese</td> <td>2.00</td> <td>2.75</td> <td>Titanium</td> <td>2.50</td> <td>3.50</td> </tr> <tr> <td>Silicon</td> <td>-</td> <td>0.35</td> <td>Cobalt</td> <td>-</td> <td>1.00</td> </tr> <tr> <td>Sulfur</td> <td>-</td> <td>0.015</td> <td>Copper</td> <td>-</td> <td>0.50</td> </tr> <tr> <td>Chromium</td> <td>14.00</td> <td>17.00</td> <td>Iron</td> <td>-</td> <td>10.00</td> </tr> </table>			Carbon	-	0.08	Nickel + Cobalt	67.00	-	Manganese	2.00	2.75	Titanium	2.50	3.50	Silicon	-	0.35	Cobalt	-	1.00	Sulfur	-	0.015	Copper	-	0.50	Chromium	14.00	17.00	Iron	-	10.00
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<p align="center"><b>WELD PROPERTIES</b></p>	<p>(As-welded)</p> <p>Hardness: 160 - 200VN          Proof stress (0.2% offset): 400 Mpa          Tensile strength: 640 Mpa          Elongation: &gt; 30%          RA: &gt; 55%</p>																																
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<p align="center"><b>PACKAGING</b></p>	<p>Sealed polyethylene envelopes. (Desiccants optional)</p>																																

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