



# UNITED STATES WELDING CORPORATION

<b>USW ALLOY DESIGNATION AND DESCRIPTION</b>	<b>TURBALOY® 8020</b> HQ-GRADE GTAW SOLID BARE WELDING WIRE NICKEL BASE	<b>ISSUED</b> JANUARY 2007	<b>DATA SHEET</b>  <b>8020</b> (16)																														
		<b>REVISION NO.</b> A																															
<b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b>	MSRR 9500/3 NC 80/20 BS 2901 PT5 1993 NA 34 NIMONIC 75	80Cr 20Ni OMAT 305B	UNS N06003 W No 2.4639 DIN 1736-SNi Cr 20																														
<b>METALLURGICAL BACKGROUND INFORMATION</b>	TURBALOY® 8020 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.  Selected low iron content grade.																																
<b>MATERIALS TO BE WELDED AND APPLICATIONS</b>	TURBALOY® 8020 weld material is released to MSRR9000/3. TURBALOY® 8020 is used to fabricate Nimonic 75 material in aircraft gas-turbine components requiring oxidation and scaling resistance and structural strength at high operating temperatures. Dissimilar joining applications. MSRR 7004, 7006, 7008, 7104, 7045, 7046, BS: HR5, HR203, HR403.																																
<b>WIRE CHEMISTRY WT%</b>	<table border="0"> <tr> <td>Carbon</td> <td>-</td> <td>0.26</td> <td>Chromium</td> <td>18.00</td> <td>21.00</td> </tr> <tr> <td>Manganese</td> <td>-</td> <td>1.20</td> <td>Cobalt</td> <td>-</td> <td>1.00</td> </tr> <tr> <td>Silicon</td> <td>-</td> <td>0.50</td> <td>Copper</td> <td>-</td> <td>0.20</td> </tr> <tr> <td>Sulfur</td> <td>-</td> <td>0.015</td> <td>Iron</td> <td>-</td> <td>0.50</td> </tr> <tr> <td>Phosphorus</td> <td>-</td> <td>0.030</td> <td>Nickel</td> <td></td> <td>Balance</td> </tr> </table>			Carbon	-	0.26	Chromium	18.00	21.00	Manganese	-	1.20	Cobalt	-	1.00	Silicon	-	0.50	Copper	-	0.20	Sulfur	-	0.015	Iron	-	0.50	Phosphorus	-	0.030	Nickel		Balance
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<b>WELD PROPERTIES</b>	Hardness: 86 HRB  Typical tensile strength: 108-121 ksi with 35-40% elongation																																
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<b>PACKAGING</b>	Sealed polyethylene envelopes. (Desiccants optional)																																

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