



UNITED STATES WELDING CORPORATION

<p align="center">USW ALLOY DESIGNATION AND DESCRIPTION</p>	<p align="center">TURBALOY[®] S HQ-GRADE GTAW SOLID BARE WELDING WIRE NICKEL BASE</p>	<p align="center">ISO 9001 AS 9100</p>	<p align="center">DATA SHEET 5838</p>																																																
<p align="center">CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</p>	<p>MSRR9500/239 ALLOY S AMS 5838</p> <p>65Ni 16Cr 15Mo 0.31Al 0.06La UNS N06635 USWC 5838 (A)</p>																																																		
<p align="center">METALLURGICAL BACKGROUND INFORMATION</p>	<p>TURBALOY[®] S 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[®] S is a solid solution strengthened Ni-Cr-Mo alloy with low thermal expansion properties used for high temperature oxide resistance and thermal cycling.</p>																																																		
<p align="center">MATERIALS TO BE WELDED AND APPLICATIONS</p>	<p>AMS 5711, 5873.</p> <p>Dissimilar metal applications and welding of cast nickel base super alloy.</p> <p>Pure argon gas shielding and ultra clean conditions are required.</p>																																																		
<p align="center">WIRE CHEMISTRY WT%</p>	<table border="0"> <tr> <td>Carbon</td><td>-</td><td>0.02</td><td>Lanthanum</td><td>0.01</td><td>0.10</td> </tr> <tr> <td>Manganese</td><td>0.30</td><td>1.00</td><td>Cobalt</td><td>-</td><td>2.00</td> </tr> <tr> <td>Silicon</td><td>0.20</td><td>0.75</td><td>Tungsten</td><td>-</td><td>1.00</td> </tr> <tr> <td>Sulfur</td><td>-</td><td>0.015</td><td>Boron</td><td>-</td><td>0.015</td> </tr> <tr> <td>Phosphorus</td><td>-</td><td>0.020</td><td>Iron</td><td>-</td><td>3.00</td> </tr> <tr> <td>Chromium</td><td>14.50</td><td>17.00</td><td>Copper</td><td>-</td><td>0.35</td> </tr> <tr> <td>Molybdenum</td><td>14.00</td><td>16.50</td><td>Nickel</td><td></td><td>Balance</td> </tr> <tr> <td>Aluminum</td><td>0.10</td><td>0.50</td><td></td><td></td><td></td> </tr> </table>			Carbon	-	0.02	Lanthanum	0.01	0.10	Manganese	0.30	1.00	Cobalt	-	2.00	Silicon	0.20	0.75	Tungsten	-	1.00	Sulfur	-	0.015	Boron	-	0.015	Phosphorus	-	0.020	Iron	-	3.00	Chromium	14.50	17.00	Copper	-	0.35	Molybdenum	14.00	16.50	Nickel		Balance	Aluminum	0.10	0.50			
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<p>DFARS Compliant</p>		<p align="right">www.usweldingcorp.com</p>																																																	