



# UNITED STATES WELDING CORPORATION

<p align="center"><b>USW ALLOY DESIGNATION AND DESCRIPTION</b></p>	<p align="center"><b>TURBALOY® 263</b>  <b>HQ-GRADE</b>  <b>GTAW SOLID BARE WELDING WIRE</b>  <b>NICKEL BASE</b></p>	<p align="center">ISO 9001 AS 9100</p>	<p align="center"><b>DATA SHEET</b>  <b>5966</b></p>																																																
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<p align="center"><b>METALLURGICAL BACKGROUND INFORMATION</b></p>	<p>TURBALOY® 263 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® 263 is a Ni-Cr-Co-Mo precipitation hardening high temperature alloy used for welding similar turbine components.</p>																																																		
<p align="center"><b>MATERIALS TO BE WELDED AND APPLICATIONS</b></p>	<p>Aircraft engine sheet components in Nimonic C263.  BS HR10, HR 206, HR 404.  AMS 5886. (Bars, forgings &amp; rings)</p> <p>Pure argon gas shielding and ultra clean weldment preparation required.</p>																																																		
<p align="center"><b>WIRE CHEMISTRY WT%</b></p>	<table border="0"> <tr> <td>Carbon</td> <td>0.04</td> <td>0.08</td> <td>Cobalt</td> <td>19.00</td> <td>21.00</td> </tr> <tr> <td>Manganese</td> <td>-</td> <td>0.60</td> <td>Titanium</td> <td>1.90</td> <td>2.40</td> </tr> <tr> <td>Silicon</td> <td>-</td> <td>0.40</td> <td>Aluminum</td> <td>0.30</td> <td>0.60</td> </tr> <tr> <td>Sulfur</td> <td>-</td> <td>0.007</td> <td>Ti+Al</td> <td>2.40</td> <td>2.80</td> </tr> <tr> <td>Phosphorus</td> <td>-</td> <td>0.015</td> <td>Iron</td> <td>-</td> <td>0.70</td> </tr> <tr> <td>Chromium</td> <td>19.00</td> <td>21.00</td> <td>Boron</td> <td>-</td> <td>0.005</td> </tr> <tr> <td>Molybdenum</td> <td>5.60</td> <td>6.10</td> <td>Copper</td> <td>-</td> <td>0.20</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Nickel</td> <td></td> <td>Balance</td> </tr> </table>			Carbon	0.04	0.08	Cobalt	19.00	21.00	Manganese	-	0.60	Titanium	1.90	2.40	Silicon	-	0.40	Aluminum	0.30	0.60	Sulfur	-	0.007	Ti+Al	2.40	2.80	Phosphorus	-	0.015	Iron	-	0.70	Chromium	19.00	21.00	Boron	-	0.005	Molybdenum	5.60	6.10	Copper	-	0.20				Nickel		Balance
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<p align="center"><b>WELD PROPERTIES</b></p>	<p>Hardness, soft condition: 20 HRC</p> <p align="right">Density: 8.36 gm/cc</p>																																																		
<p align="center"><b>SIZES AND FORMS AVAILABLE</b></p>	<table border="0"> <tr> <td align="center" colspan="2">STRAIGHT LENGTHS</td> <td align="center" colspan="2">SPOOLED WIRE</td> </tr> <tr> <td>5 lb. (2.2kg) packs</td> <td></td> <td>Precision layer wound, with controlled cast and helix</td> <td></td> </tr> <tr> <td>36" (914mm) lengths</td> <td></td> <td>12" (300mm) diameter spools standard</td> <td></td> </tr> <tr> <td>Flag tagged for traceability.</td> <td></td> <td>8" (200mm), 4" (100mm) and proprietary spool sizes</td> <td></td> </tr> <tr> <td>(Double tagging and other lengths on request)</td> <td></td> <td>on request.</td> <td></td> </tr> <tr> <td>Wide range of diameters.</td> <td></td> <td>Wide range of diameters and spool weights.</td> <td></td> </tr> </table>			STRAIGHT LENGTHS		SPOOLED WIRE		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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<p align="center"><b>PACKAGING</b></p>	<p>Sealed polyethylene envelopes. (Desiccants optional)</p>																																																		
<p>DFARS Compliant</p>		<p align="right">www.usweldingcorp.com</p>																																																	