



UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND DESCRIPTION	TURBALOY® 308L HQ-GRADE GTAW SOLID BARE WELDING WIRE IRON BASE	ISSUED JANUARY 2007	DATA SHEET 1436 (1)																														
		REVISION NO. A																															
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	USW 1436 (A) 20Cr 11 Ni .03 C Max. UNS S30883 AWS A5.9 ER308L																																
METALLURGICAL BACKGROUND INFORMATION	<p>TURBALOY® 308L 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® 308L is a low carbon stainless steel that reduces the possibility of intergranular carbide precipitation and increases the resistance to intergranular corrosion without the use of stabilizers such as columbium and titanium.</p>																																
MATERIALS TO BE WELDED AND APPLICATIONS	Typically used weld 304, 304L, 321 and 347 type stainless steels																																
WIRE CHEMISTRY WT%	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Carbon</td><td style="text-align: center;">-</td><td style="text-align: center;">0.03</td><td>Chromium</td><td style="text-align: center;">19.50</td><td style="text-align: center;">22.00</td> </tr> <tr> <td>Manganese</td><td style="text-align: center;">1.00</td><td style="text-align: center;">2.50</td><td>Nickel</td><td style="text-align: center;">9.00</td><td style="text-align: center;">11.00</td> </tr> <tr> <td>Silicon</td><td style="text-align: center;">0.30</td><td style="text-align: center;">0.65</td><td>Molybdenum</td><td></td><td style="text-align: center;">.75</td> </tr> <tr> <td>Sulfur</td><td style="text-align: center;">-</td><td style="text-align: center;">0.030</td><td>Copper</td><td style="text-align: center;">-</td><td style="text-align: center;">0.75</td> </tr> <tr> <td>Phosphorus</td><td style="text-align: center;">-</td><td style="text-align: center;">0.030</td><td>Iron</td><td></td><td style="text-align: center;">Balance</td> </tr> </table>			Carbon	-	0.03	Chromium	19.50	22.00	Manganese	1.00	2.50	Nickel	9.00	11.00	Silicon	0.30	0.65	Molybdenum		.75	Sulfur	-	0.030	Copper	-	0.75	Phosphorus	-	0.030	Iron		Balance
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WELD PROPERTIES	Tensile Strength (Psi) : 83,000 Elongation: 40%																																
SIZES AND FORMS AVAILABLE	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; vertical-align: top;"> STRAIGHT LENGTHS 5 lb. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters. </td> <td style="text-align: center; vertical-align: top;"> SPOOLED WIRE Precision layer wound, with controlled cast and helix 12" (300mm) diameter spools standard 8" (200mm), 4" (100mm) and proprietary spool sizes on request. Wide range of diameters and spool weights. </td> </tr> </table>			STRAIGHT LENGTHS 5 lb. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters.	SPOOLED WIRE Precision layer wound, with controlled cast and helix 12" (300mm) diameter spools standard 8" (200mm), 4" (100mm) and proprietary spool sizes on request. Wide range of diameters and spool weights.																												
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PACKAGING	Sealed polyethylene envelopes. (Desiccants optional)																																

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