



# UNITED STATES WELDING CORPORATION

<b>USW ALLOY DESIGNATION AND DESCRIPTION</b>	<b>5356</b> <b>GTAW and GMAW SOLID WELDING WIRE ALUMINUM BASE</b>		<b>ISSUED</b> JANUARY 2007	<b>DATA SHEET</b>  <b>1374</b> (10)																																				
			<b>REVISION NO.</b> A																																					
<b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b>	DRU 1374 UNS A95356 DTD 279 USWC 1374 (C)	ER5356 (AWS A5.10) R5356 “ “ MSRR9500/38 (Replacement for 5056) (N6, NG6)	W N ° 3.35566 DIN Al-Mg5																																					
<b>METALLURGICAL BACKGROUND INFORMATION</b>	<p>ALLOY 5356 is a solid welding wire produced conventionally and then surface cleaned to remove standard metal working lubricants.</p> <p>ALLOY 5356 is an Al-Mg-Mn (Cr Ti) heat treatable alloy used for welding alloys of similar composition. 5356 is increasingly used in preference to type 5056, since it contains Ti for grain refining. (<i>Note:</i> 5056 tends only to be available for rivet stock).</p>																																							
<b>MATERIALS TO BE WELDED AND APPLICATIONS</b>	5154, 5050, 5052, 5454, 525, 5005, 5086.																																							
<b>WIRE CHEMISTRY WT%</b>	<table> <tr> <td>Silicon</td> <td>-</td> <td>0.25</td> <td>Zinc</td> <td>-</td> <td>0.10</td> </tr> <tr> <td>Iron</td> <td>-</td> <td>0.40</td> <td>Titanium</td> <td>0.06</td> <td>0.20</td> </tr> <tr> <td>Copper</td> <td>-</td> <td>0.10</td> <td>Other impurities</td> <td>-</td> <td>0.05 each max</td> </tr> <tr> <td>Manganese</td> <td>0.05</td> <td>0.20</td> <td>Other impurities</td> <td>-</td> <td>0.15 total max</td> </tr> <tr> <td>Magnesium</td> <td>4.5</td> <td>5.5</td> <td>Aluminum</td> <td></td> <td>Balance</td> </tr> <tr> <td>Chromium</td> <td>0.05</td> <td>0.20</td> <td></td> <td></td> <td></td> </tr> </table>				Silicon	-	0.25	Zinc	-	0.10	Iron	-	0.40	Titanium	0.06	0.20	Copper	-	0.10	Other impurities	-	0.05 each max	Manganese	0.05	0.20	Other impurities	-	0.15 total max	Magnesium	4.5	5.5	Aluminum		Balance	Chromium	0.05	0.20			
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<b>WELD PROPERTIES</b>	Melting range 1060° - 1175°F      Density 2.66gm/cc																																							
<b>SIZES AND FORMS AVAILABLE</b>	<b>STRAIGHT LENGTHS</b>		<b>SPOOLED WIRE</b>																																					
	2.2 kg ( 5 lb) packs. 914 mm (36”) lengths. Flag tagged for traceability. (Double tagging and other lengths on request). Wide range of diameters.		Precision layer wound & with controlled cast & helix. 300 mm (12”) diameter spools standard. 200 mm, 100 mm and proprietary spool sizes on request Wide range of diameters and spool weights.																																					
<b>PACKAGING</b>	Sealed, air-evacuated, argon purged Vapor Barrier envelopes with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.																																							

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