



# UNITED STATES WELDING CORPORATION

<b>USW ALLOY DESIGNATION AND BRIEF DESCRIPTION</b>	<p style="text-align: center;"><b>AZ101A</b></p> <p style="text-align: center;"><b>GTAW SOLID BARE WELDING WIRE MAGNESIUM BASE</b></p>	<p style="text-align: center;">ISO 9001 AS 9100</p> <hr/> <p style="text-align: center;">Revision A</p>	<p style="text-align: center;"><b>DATA SHEET</b>  <b>1308</b></p>																																																	
<b>CROSS-REFERENCE CONFORMANCE SPECIFICATIONS</b>	<p>AZ101A USW 1308 AWS A5.19 R-AZ101A</p>																																																			
<b>METALLURGICAL BACKGROUND INFORMATION</b>	<p>Alloy AZ101A is a Mg -10 Al - 1Zn welding alloy and is used to weld wrought and cast alloys of similar composition for ambient temperature service. AZ101A is preferred to AZ92A for some critical joining applications.</p>																																																			
<b>MATERIALS TO BE WELDED APPLICATION AND ADVICE</b>	<p>AZ63A, AZ81A, AZ91A, AZ92A</p> <p>Joining elevated temperature alloys such as HK31A, HM21A, HM31A, to ambient temperature alloys such as AZ81A, AZ91A, AZ92A</p>																																																			
<b>WIRE CHEMISTRY WT%</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Aluminum</td> <td style="width: 10%;">9.50</td> <td style="width: 10%;">10.50</td> <td style="width: 10%;">Silicon</td> <td style="width: 10%;">-</td> <td style="width: 10%;">0.05</td> <td style="width: 10%;"></td> </tr> <tr> <td>Beryllium</td> <td>2 ppm</td> <td>8 ppm</td> <td>Other elements</td> <td>-</td> <td>0.30</td> <td>total</td> </tr> <tr> <td>Manganese</td> <td>0.15</td> <td>0.50</td> <td>Magnesium</td> <td></td> <td>Balance</td> <td></td> </tr> <tr> <td>Zinc</td> <td>0.75</td> <td>1.25</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Copper</td> <td>-</td> <td>0.05</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Iron</td> <td>-</td> <td>0.005</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nickel</td> <td>-</td> <td>0.005</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			Aluminum	9.50	10.50	Silicon	-	0.05		Beryllium	2 ppm	8 ppm	Other elements	-	0.30	total	Manganese	0.15	0.50	Magnesium		Balance		Zinc	0.75	1.25					Copper	-	0.05					Iron	-	0.005					Nickel	-	0.005				
Aluminum	9.50	10.50	Silicon	-	0.05																																															
Beryllium	2 ppm	8 ppm	Other elements	-	0.30	total																																														
Manganese	0.15	0.50	Magnesium		Balance																																															
Zinc	0.75	1.25																																																		
Copper	-	0.05																																																		
Iron	-	0.005																																																		
Nickel	-	0.005																																																		
<b>WELD PROPERTIES</b>	<p>Melting Point 1099° F</p>																																																			
<b>SIZES AND FORMS OF SUPPLY</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><b>STRAIGHT LENGTHS</b></td> <td style="width: 50%; text-align: center;"><b>SPOOLED WIRE</b></td> </tr> <tr> <td>5 lbs. (2.2kg) packs</td> <td>Precision layer wound, with controlled cast and helix</td> </tr> <tr> <td>36" (914mm) lengths</td> <td>12" (300mm) diameter spools standard</td> </tr> <tr> <td>Flag tagged for traceability.</td> <td>8" (200mm), 4" (100mm) and proprietary spool sizes</td> </tr> <tr> <td>(Double tagging and other lengths on request)</td> <td>on request.</td> </tr> <tr> <td>Wide range of diameters.</td> <td>Wide range of diameters and spool weights.</td> </tr> </table>			<b>STRAIGHT LENGTHS</b>	<b>SPOOLED WIRE</b>	5 lbs. (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.																																					
<b>STRAIGHT LENGTHS</b>	<b>SPOOLED WIRE</b>																																																			
5 lbs. (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.																																																			
<b>PACKAGING</b>	<p>Sealed, air-evacuated, argon filled Vapor Barrier containers with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																																																			
DFARS Compliant		<a href="http://www.usweldingcorp.com">www.usweldingcorp.com</a>																																																		