



UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND BRIEF DESCRIPTION	AZ101A GTAW SOLID BARE WELDING WIRE MAGNESIUM BASE	ISSUED JANUARY 2007	DATA SHEET 1308 (1)																																										
		REVISION NO. A																																											
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	AZ101A USW 1308 USWC 1308 (C) AWS A5.19 R-AZ101A																																												
METALLURGICAL BACKGROUND INFORMATION	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.																																												
MATERIALS TO BE WELDED APPLICATION AND ADVICE	AZ63A, AZ81A, AZ91A, AZ92A Joining elevated temperature alloys such as HK31A, HM21A, HM31A, to ambient temperature alloys such as AZ81A, AZ91A, AZ92A																																												
WIRE CHEMISTRY WT%	<table> <tr> <td>Aluminum</td> <td>9.50</td> <td>10.50</td> <td>Silicon</td> <td>-</td> <td>0.05</td> </tr> <tr> <td>Beryllium</td> <td>2 ppm</td> <td>8 ppm</td> <td>Other elements</td> <td>-</td> <td>0.30 total</td> </tr> <tr> <td>Manganese</td> <td>0.15</td> <td>0.50</td> <td>Magnesium</td> <td></td> <td>Balance</td> </tr> <tr> <td>Zinc</td> <td>0.75</td> <td>1.25</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Copper</td> <td>-</td> <td>0.05</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Iron</td> <td>-</td> <td>0.005</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nickel</td> <td>-</td> <td>0.005</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			
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WELD PROPERTIES	Melting Point 1099° F																																												
SIZES AND FORMS OF SUPPLY	STRAIGHT LENGTHS		SPOOLED WIRE																																										
	5 lbs. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters.		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.																																										
PACKAGING	Sealed, air-evacuated, argon filled Vapor Barrier containers with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.																																												
DISTRIBUTED BY:																																													