



UNITED STATES WELDING CORPORATION

USW ALLOY DESIGNATION AND BRIEF DESCRIPTION	<p style="text-align: center;">EZ33A</p> <p style="text-align: center;">GTAW SOLID BARE WELDING WIRE MAGNESIUM BASE</p>	<p style="text-align: center;">ISO 9001 AS 9100</p>	<p style="text-align: center;">DATA SHEET 4396</p>																								
CROSS-REFERENCE CONFORMANCE SPECIFICATIONS	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">AMS 4396 EZ33A ZRE1</td> <td style="width: 50%; border: none;">MSRR 9500/50 UNS M12330 MIL-R-6944 AFNOR G-TRZ2 AWS A5.19 R-EZ33A</td> </tr> </table>			AMS 4396 EZ33A ZRE1	MSRR 9500/50 UNS M12330 MIL-R-6944 AFNOR G-TRZ2 AWS A5.19 R-EZ33A																						
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METALLURGICAL BACKGROUND INFORMATION	<p>EZ33A is a Mg - Rare Earth - Zn - Zr alloy which is widely used for joining alloys for elevated temperature use.</p>																										
MATERIALS TO BE WELDED APPLICATION AND ADVICE	<p>MSRR 8013, 2L126, 2L128, MAG6, AMS 4442, ZR1 to ZTY (MSRR 8015) ASTM B80, QQ-M-56B HK31A, HM21A, HM31A, QE22A to HK31A,</p>																										
WIRE CHEMISTRY WT%	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Cerium</td> <td style="width: 10%;">2.50</td> <td style="width: 10%;">4.00</td> <td style="width: 50%;"></td> </tr> <tr> <td>Zinc</td> <td>2.00</td> <td>3.10</td> <td></td> </tr> <tr> <td>Zirconium, Total</td> <td>0.45</td> <td>1.00</td> <td></td> </tr> <tr> <td>Zirconium Soluble</td> <td>0.45</td> <td>-</td> <td></td> </tr> <tr> <td>Other Elements Total</td> <td>-</td> <td>0.30</td> <td></td> </tr> <tr> <td>Magnesium</td> <td></td> <td>Balance</td> <td></td> </tr> </table>			Cerium	2.50	4.00		Zinc	2.00	3.10		Zirconium, Total	0.45	1.00		Zirconium Soluble	0.45	-		Other Elements Total	-	0.30		Magnesium		Balance	
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WELD PROPERTIES	<p>Melting Range 1013° F - 1184° F</p>																										
SIZES AND FORMS OF SUPPLY	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;"> STRAIGHT LENGTHS 5 lbs. (2.2kg) packs 36" (914mm) lengths Flag tagged for traceability. (Double tagging and other lengths on request) Wide range of diameters. </td> <td style="width: 50%; 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 lbs. (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	<p>Sealed, air-evacuated, argon filled Vapor Barrier containers with desiccants ensure full protection from atmospheric contamination and prolonged shelf-life.</p>																										
DFARS Compliant		www.usweldingcorp.com																									