



Magnesium Elektron

SERVICE & INNOVATION IN MAGNESIUM

Magnesium Alloy Welding Rod

Datasheet : 430

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Magnesium Alloy Welding Rod

Magnesium Elektron offer an extensive range of magnesium alloy welding rod for TIG (argon arc) welding.

The standard offer covers over 22 chemical compositions, which have been given a 'W' designation in chronological order of introduction. The analysis ranges quoted do not necessarily conform exactly to any particular national, international or customer specification, but have been carefully selected to fall within the range of many specifications and to facilitate ease of welding, thus permitting a more efficient service to customers. Other alloys, additional to those shown, may also be available on request.

The specifications covered include:-

- UK – British Standard BSL, BS2970, MOD DTD series, Rolls Royce MSRR.
- USA – ASTM, AMS, QQ-M, AWS.
- Germany – Aircraft number, DIN 1729.
- France – Air 3380 and AFNOR.
- European – AECMA

Condition

As extruded. Smooth finish, free from surface grease or other foreign matter which would adversely affect the welding operation.

Dimensions

Standard diameters: 1.6 mm, 2.4 mm, 3 mm, 4 mm, and 4.8 mm. Length approx. 1 metre.

Packaging

Packed in tough plastic tubes with loose, taped end caps labelled with alloy, size, weight and melt number. Supplied in approx. 2 kg packages.

Welding rod will normally be supplied to the standard 'W' number composition shown below, unless special compositions relating to the parent material are agreed.

MAGNESIUM ELEKTRON WELDING ROD DESIGNATIONS

ROD	ELEKTRON ALLOY UK (US)	CHEMICAL COMPOSITION %											
		Zn	Al	Cu	Mn	Th	Ag	Zr	RE				
W1	Pure Mg MIN MAX											Mg 99.5	
W2	AM503 (MIA) MIN MAX				1.3 1.7								
W4	AZ92 MIN MAX	1.7 2.3	8.5 9.5	0.15 0.4								Be 0.0002 0.0008	
W5	ZM21 MIN MAX	1.75 2.3		0.75 1.0									
W6	ZRE1 (EZ33) MIN MAX	2.0 3.0						0.5 1.0	2.5 4.0				
W7	RZ5 (ZE41) MIN MAX	3.6 4.0						0.5 1.0	1.0 1.75				
W8	QE22 MIN MAX						2.0 3.0	0.5 1.0	1.8 2.5				
W9	ZE63 MIN MAX	5.5 6.0						0.5 1.0	2.0 3.0				
W10	ZW1 (ZK10) MIN MAX	0.75 1.5						0.5 0.8					
W11	ZT1 (HZ32) MIN MAX	1.7 2.5				2.5 4.0		0.5 1.0					
W12	TZ6 (ZH62) MIN MAX	5.2 6.0				1.5 2.2		0.5 1.0					
W13	MSR-B MIN MAX										2.0 3.0	0.5 1.0	2.2 2.7
W14	A8 (AZ81) MIN MAX	0.4 1.0	7.5 8.1	0.15 0.4									
W15	AZ31 MIN MAX	0.7 1.3	2.5 3.5	0.2 0.4									
W16	AZ101 MIN MAX	0.75 1.25	9.5 10.5	0.13 0.4									Be 0.0002 0.0008
W18	AZ91 MIN MAX	0.4 1.0	8.3 9.0	0.17 0.35									
W19	EQ21 MIN MAX			0.05 0.1						1.3 1.7	0.5 1.0	1.75 2.5	
W21	ZC63 MIN MAX	5.5 6.5	2.4 3.0	0.25 0.75									
W22	ZC71 MIN MAX	6.0 7.0	1.0 1.5	0.5 1.0									
W23	WE54 MIN MAX										0.4 1.0	2.0 4.0	Y 4.75 5.5
W24	AZ61 MIN MAX	0.4 1.5	6.0 7.0	0.15 0.4									Be 0.0002 0.0008
W25	WE43 MIN MAX										0.4 1.0	2.4 4.4	Y 3.7 4.3



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