



# Magnesium Elektron

SERVICE & INNOVATION IN MAGNESIUM

# Elektron Cast Billet

Datasheet : 490

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A Luxfer Group Company

# Magnesium Cast Billet

Direct chill cast billet is manufactured by Magnesium Elektron as the starting material for other magnesium products, such as sheet, forgings and extrusions. However, it has been frequently found that the cast billet is suitable for machining into prototypes, thus avoiding expensive tooling, and in some cases for production where the size of the finished item is outside economic casting or extrusion dimension or minimum economic production.

Cast billet is supplied to the compositional requirements but not the mechanical properties of the British/ASTM Standard for the corresponding wrought or cast alloy. With conventional casting alloys, if the billets were to be heat treated it would be expected that the specification minimum properties would be obtained though, due to the casting technique employed, no guarantee could be given.

Inspection standards for cast billet will be by agreement. Ultrasonic inspection to AMS-STD-2154 Class A or Class AA is available upon request. Temporary corrosion preventative surface treatments can be applied by agreement.

## CONTINUOUS CAST MACHINING STOCK

Magnesium Elektron supplies direct chill continuous cast machining stock for manufacture of parts which are larger than possible by conventional production methods. Stock is rectangular, with two opposing faces machined, and then sawn to ordered size. The alloy for machining stock is AZ31B per the chemical composition requirements of ASTM B90.

Maximum Thickness	330mm
Maximum Width	1115mm
Maximum Length	2080mm

## NOMINAL WEIGHT OF AVAILABLE CAST BILLET (kilograms per metre of billet length)

Diameter (mm) Length (mm)	Machined Billets								As-cast Billets	
	73 Ø 25-600	100 Ø 25-600	175 Ø 25-600	220 Ø 25-600	246 Ø 25-600	295 Ø 25-600	384 Ø 25-840	398 Ø 500-1825	410 Ø 500-1825	447 Ø 500-1825
A8	7.5	-	-	-	-	-	-	-	-	-
AZComm	-	-	-	-	-	-	-	-	232	276
AZ21X1	-	-	-	-	-	-	-	-	232	276
AZ31B	-	-	-	-	-	-	-	-	234	278
AZ61A	-	-	-	-	-	-	207	-	236	281
AZ80A	-	-	43.3	68.4	85.6	123	-	224	-	-
AZ855	-	-	43.3	68.4	85.6	123	-	-	-	-
AZ91	7.6	-	-	-	-	-	-	-	-	-
AZM	7.5	-	-	-	-	123	-	-	-	-
M1C	-	-	-	-	-	-	-	-	231	275
MSR	7.6	-	-	-	-	-	-	-	-	-
Pure Mg	7.3	-	41.9	66.1	82.7	119	-	-	-	-
RZ5	7.7	-	-	-	-	-	-	-	-	-
WE43	7.7	14.5	44.3	69.9	87.5	-	-	-	-	-
WE54	7.7	14.5	44.5	70.3	87.9	-	-	-	-	-
ZA	7.3	-	42.1	66.5	83.2	120	-	-	-	-
ZK60A	-	-	-	-	-	-	-	226	-	-
ZRE1	7.5	-	-	-	-	-	-	-	-	-
ZW3	-	-	43.3	68.4	85.6	123	-	-	-	-

Alloy and size combinations without a listed weight may be available on inquiry.



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