



Creasey Castings Limited

Magnesium Casting Alloys SPECIFICATIONS

AZ91

Aluminium	8.1 – 9.3
Manganese	0.17 – 0.35
Zinc	0.4 – 1.0
Iron	0.005
Silicon	0.2
Copper	0.015
Nickel	0.01

AZ91 Mechanical Properties

0.2% Proof stress (N/mm ²)	80 – 110
Tensile strength (N/mm ²)	200
Elongation (%)	4
Brinell Hardness	55 – 70

L128 / RZ5

Zirconium	0.4 – 1.0
Manganese	0.15
Zinc	3.5 – 5.0
Silicon	0.01
Copper	0.03
Iron	0.01
Nickel	0.005

RZ5 Mechanical Properties

0.2% Proof stress (N/mm ²)	135
Tensile strength (N/mm ²)	200
Elongation (%)	3
Brinell Hardness	55 – 80

EK21

Zirconium	Saturated
Zinc	0.2 – 0.5
Neodymium	2.6 – 3.1
Gadolinium	1.0 – 1.7
Magnesium	Remainder

EK21 Mechanical Properties

0.2% Proof stress (N/mm ²)	145
Tensile strength (N/mm ²)	248
Elongation (%)	2
Brinell Hardness	65 – 75

L126 / ZRE1

Zirconium	0.4 – 1.0
Manganese	0.15
Zinc	2.0 – 4.0
Iron	0.01
Nickel	0.005
Magnesium	Remainder

ZRE1 Mechanical Properties

0.2% Proof stress (N/mm ²)	95
Tensile strength (N/mm ²)	140
Elongation (%)	3
Brinell Hardness	0