Standard Magnesium Alloys from
Galaxy Magnesium
Technical and Functional Specifications
http://www.galaxymagnesium.com

Alloy: Magnesium- AZ91D

General Description:
the most widely used magnesium die cast alloy, it has excellent mechanical properties, corrosion resistance, and castability.

Common Applications:
often used for structural applications.

Note: Magnesium AZ91A, B, C, D, and E have the same nominal composition but differ in ranges and/or specified impurity limits.

Chemical Composition

Magnesium, Mg	89.292 – 91.042%
Aluminum, Al	8.3 - 9.7%
Manganese, Mn	0.15 - 0.50%
Zinc, Zn	0.351%
Silicon, Si	0.1%
Copper, Cu	0.03%
Iron, Fe	0.005%
Nickel, Ni	0.002%
Others, each max	0.02%

Physical Properties

	Metric	Imperial
Density	1.81 g/cm³	1.046 lb/in³

Mechanical Properties

	Metric	Imperial
Tensile strength	240-250 MPa	35-36 ksi
Yield strength	160 MPa	23.20 ksi
Elastic modulus	45 Gpa	6526 ksi
Elongation	3-7%	3-7%
Hardness, Brinell	63	63

Thermal Properties

Thermal expansion coefficient

	Metric	Imperial
(@20-100°C/68-212°F)	26 µm/m°C	14.4 µin/in°F
Thermal conductivity	72.7 W/mK	504 BTU in/hr.ft².°F

Delivery Format: Billet, bar or plate; other formats, dimensions, thickness to customer requirement

Available for immediate delivery from Galaxy Magnesium
email business@galaxymagnesium.com
or call 1 212-608-2020 (New York)

External Reference: https://www.azom.com/article.aspx?ArticleID=9239

http://www.galaxymagnesium.com #MagnesiumRevolution