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

Alloy: Magnesium- AZ31B-F

General Description: a medium-strength magnesium alloy.

Common Applications: aircraft fuselages, cell phone and laptop cases, speaker cones and concrete tools. Can be superformed at elevated temperatures to produce a wide variety of intricate components for automotive uses.

Chemical Composition

Magnesium, Mg	97%
Aluminum, Al	2.5 - 3.5%
Zinc, Zn	0.60 - 1.4%
Manganese, Mn	≥ 0.20%
Silicon, Si	≤ 0.10%
Copper, Cu	≤ 0.050%
Calcium, Ca	≤ 0.040%
Iron, Fe	≤ 0.0050%
Nickel, Ni	≤ 0.0050%

Physical Properties

	Metric	Imperial
Density	1.77 g/cm³	0.0639 lb/in³

Mechanical Properties

	Metric	Imperial
Tensile strength	260 MPa	37700 psi
Yield strength	200 MPa	29000 psi
Poisson's ratio	0.35	0.35
Elastic modulus	45 GPa	6526 ksi
Shear strength	130MPa	18ksi
Elongation at break	15%	15%
Hardness, Brinell	49	49

Thermal Properties

Thermal expansion co-efficient

	Metric	Imperial
(@20-100°C/68-212°F)	26 µm/m°C	14.4 µin/in°F
Thermal conductivity	96 W/mK	666 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=9237

http://www.galaxymagnesium.com #MagnesiumRevolution