

Magnesium Thixomolding Alloy Compositions



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The following is a summary of the compositions of typical magnesium thixomolding alloys. Compositions are nominal, except for the Mg-Al-Ca alloys noted with *.

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COMPOSITION wt. %															Reference	Link
Alloy	Al	Zn	RE	Zr	Ag	Mn	Y	Th	Li	Cu	Si	Sr	Ca	Others	Reference	Link
AM50A	4.9	0.22				0.32								0.002 max Ni, 0.004 max Fe	Handbook of Materials Selection, ed. Kutz, Myer, 2002 John Wiley & Sons	Read the Full Article
AM60B	6.9	0.22 max				0.42								0.002 max Ni, 0.005 max Fe	Handbook of Materials Selection, ed. Kutz, Myer, 2002 John Wiley & Sons	Read the Full Article
AZ91D	9	0.7				0.26								0.001 max Ni, 0.005 max Fe	Handbook of Materials Selection, ed. Kutz, Myer, 2002 John Wiley & Sons	Read the Full Article
ZAX8506	5	8											0.6		E. A. Nyberg, D. J. Edwards and R. H. Jones, "Microstructure and Microchemistry of Creep Resistant Magnesium Alloys", Magnesium Technology 2001, TMS, pp. 169-174.	Read the Full Article
Mg-Al-Ca (various) *	4.3 - 6.1					0.23 - 0.29							0 - 4.84		T. Tsukeda, A. Maehara, K. Saito, M. Suzuki, J. Koike, K. Maruyama and H. Kubo, "Mechanical Properties and Microstructure of Heat Resistant Mg-Al-Ca Alloys Formed by Thixomolding", Magnesium Technology 2000, TMS, pp. 395-402.	Read the Full Article