Selected Readings: Magnesium Creep

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The following are selected readings for magnesium creep reviewed by an advisory group of TMS subject matter experts

PAPER TITLE	AUTHOR(S)	SOURCE	MORE
"Threshold Stress During Tensile and Compressive Creep in AE42 Magnesium Alloys"	*H. Dieringa, N. Hort, and K. U. Kainer*	Magnesium Technology 2007, p. 395	Link to 2007 Proceedings
"Analysis of the Creep Response of the AE44 Magnesium Alloy between 100 and 150°C"	*E. Evangelista, S. Spigarelli, M. ElMehtedi, and M. Cabibbo*	Magnesium Technology 2007, p. 401	Link to 2007 Proceedings
"Creep Behavior of Permanent Mold Cast Mg-Al-Ca Based Alloys"	*N. Saddock, A. Suzuki, J. R. TerBush, T. M. Pollock, and W. Jones*	Magnesium Technology 2007, p. 407	Link to 2007 Proceedings
"Creep and Rupture Properties of a Squeeze-Cast Mg-Al-Ca Alloy"	*S. M. Zhu, J. F. Nie and B. L. Mordike*	Metallurgical and Materials Transactions A, Vol 37A, April 2006, p. 1221	Read Abstract
"Creep Transition Behavior of Pure Magnesium Poly and Single Crystals"	*J. S. Park and Y. W. Chang*	Magnesium Technology 2006, p. 373	Link to 2006 Proceedings
"Phase Transformations and Creep of Mg-Al-Ca Based Die-Cast Alloys"	*A. Suzuki, N. D. Saddock, J. W. Jones, and T. M. Pollack*	Magnesium Technology 2005, p. 111	Link to 2005 Proceedings
"Metallurgical Background to the Development of Creep Resistant Gravity Casting Magnesium Alloys"	*B. Bronfin, M. Katsir, O. Bar-Yosef, F. Moll and S. Schumann*	Magnesium Technology 2005, p. 395	Link to 2005 Proceedings
"Creep Studies on MRI153 Magnesium Alloy Castings"	*S. M. Zhu, B. L. Mordike, and J. F. Nie*	Magnesium Technology 2005, p. 429	Link to 2005 Proceedings
"A Thousandfold Creep Strengthening by Ca Addition in Die-Cast AM50 Magnesium Alloy"	*Y. Terada, R. Sota, N. Ishimatsu, T. Sato and K. Ohori*	Metallurgical and Materials Transactions A, Vol. 35A, September, 2004, p. 3029	Read Abstract
"The Portevin-LeChatelier Effect and Creep Behavior in a Mg-Ca-Zn-Zr Alloy"	*S. M. Zhu, X. Gao and J. F. Nie*	Magnesium Technology 2004, p. 325	Read the Full Paper
"Effects of Ca Additions on Microstructures, Age Hardening Response and Creep Behavior of Mg-8Zn-4Al Casting Alloy"	*C. Mendis, L. bourgeois, B. Mudlle and J.-F. Nie*	Magnesium Technology 2003, p. 183	Read the Full Paper
"Magnesium Diecasting Alloy AJ62x with Superior Creep Resistance, Ductility and Diecastability"	*M. Pekguleryuz, P. Labelle, D. Argo and E. Baril*	Magnesium Technology 2003, p. 201	Read the Full Paper
"Elevated Temperature Mg-Al-Sr: Creep Resistance, Mechanical Properties, and Microstructure"	*Eric Baril, Pierre Labelle, and Mihriban O. Pekguleryuz*	*JOM* , November 2003, p. 34	Read the Full Paper
"Creep and Microstructure of Magnesium-Aluminum-Calcium Based Alloys"	*Alan A. Luo, Michael P. Balogh, and Bob R. Powell*	Metallurgical and Materials Transactions A, Vol. 33A, March 2002, p. 567	Read Abstract
"Creep Processes in Magnesium Alloys and their Composites"	*V. Sklenicka, M. Pahutova, K. Kucharova, M. Svoboda, and T.G. Langdon*	Metallurgical and Materials Transactions A, Vol. 33A, March 2002, p. 883	Read Abstract
"Creep Strength of Magnesium-Based Alloys"	*Kouichi Maruyama, Mayumi Suzuki, and Hiroyuki Sato*	*Metallurgical and Materials Transactions A, Vol 33A, March 2002, p. 875*	Read Abstract
"Microstructure and Creep Behavior of a Die Cast Magnesium-Rare Earth Alloy"	*I. P. Moreno, T. K. Nandy, J. W. Jones, J. E. Allison and T. M. Pollock*	*Magnesium Technology 2002, p. 111*	Read the Full Paper
"Development of Creep Resistant Mg-Al-Sr Alloys"	*M.O. Pekguleryuz and E. Baril*	*Magnesium Technology 2001, p. 119*	Read the Full Paper
"Microstructure and Microchemistry of Creep Resistant Magnesium Alloys"	*E.A. Nyberg, D.J. Edwards, and R.H. Jones*	*Magnesium Technology 2001, p. 169*	Read the Full Paper
"Tensile and Compressive Creep Magnesium-Aluminum-Calcium Based Alloys"	*A.A. Luo and B.R. Powell*	*Magnesium Technology 2001, p. 137*	Read the Full Paper
"The Mg-Zn-Al Alloys and the Influence of Calcium on Their Creep Properties"	*Z. Zhang, R. Tremblay, and D. Dube*	*Magnesium Technology 2001, p. 147*	Read the Full Paper

"The Relationship Between Microstructure and Creep Behvior in AE42 Magnesium Die Casting Alloy"	*B. R. Powell, V. Rezhets, M. P. Balogh and R. A. Waldo*	*Magnesium Technology 2001, p. 175*	Read the Full Paper
"Creep and Hot Working of Mg Alloy AZ91"	*H. J. McQueen and E. V. Konopleva*	*Magnesium Technology 2001, p. 227*	Read the Full Paper
"Qualitative Model for Creep of AZ91D Magnesium Alloy"	*M. Regev, A. Rosen, and M. Bamberger*	*Metallurgical and Materials Transactions A*, June 2001, p. 1335	Read Abstract
"Development of High Creep-Resistant Magnesium Alloy Strengthened by Ca Addition"	*T. Horie, H. Iwahori, Y. Seno, and Y. Awano*	*Magnesium Technology 2000, p. 261*	Read the Full Paper
"Creep Resistance in Mg–Al–Ca Casting Alloys"	*M.O. Pekguleryuz and J. Renaud*	*Magnesium Technology 2000, p. 279*	Read the Full Paper
"The Effect of Calcium on Creep and Bolt Load Retention Behavior of Die–Cast AM50 Alloy"	*K.Y. Sohn, J.W. Jones, and J.E. Allison*	*Magnesium Technology 2000, p. 271*	Read the Full Paper
"Tensile and Compressive Creep Behavior of Die Cast Magnesium Alloy AM60B"	*S.R. Agnew, K.C. Liu, E.A. Kenik, and S. Viswanathan*	*Magnesium Technology 2000, p. 285*	Read the Full Paper