

WOODHEAD PUBLISHING IN MATERIALS

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金属注射成形手册

Handbook of metal injection molding

Edited by Donald F. Heaney

哈尔滨工业大学出版社
HARBIN INSTITUTE OF TECHNOLOGY PRESS

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Donald F. Heaney

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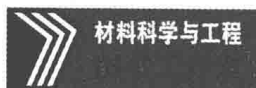
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Preface

The metal injection molding (MIM) process has gained significant credibility over the last 20 years and has become prevalent in market segments previously impenetrable, including medical implants and aerospace componentry. Many variants of the technology have been developed and commercialized, resulting in over 400 commercial MIM enterprises worldwide. This book is designed to serve as an up-to-date reference book for this rapidly changing technology. The book brings together the viewpoints of leading experts from around the world to provide a clear and concise handbook that will serve both the business decision makers and technical practitioners.

Initially, a market overview provides a business view of applications, financial performance and growth potentials. This is followed by four technical sections. These sections are on general processing, quality, specialized processes, and specific materials. The general processing section provides guidelines for component design and detailed processing information on each of the MIM process steps. A quality section is provided to expand upon the limited generalized literature devoted to MIM quality. A section on specialized MIM processes provides a view of some of the unique variants achievable by modifying the MIM process. This includes topics such as micromolding, porous materials, and bonding of two MIM materials. The final section on materials is devoted to both contemporary and emerging metal systems capable of being processed using MIM technology.

I thank all the contributors for their hard work and support during the preparation of this book. By design, I hope the unique expertise of the individual contributors is clearly seen and appreciated. Finally, I thank the editorial staff of Woodhead Publishing for their unparalleled persistence and professionalism during the preparation of this book.

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Contents

<i>Contributor contact details</i>	<i>xiii</i>
<i>Preface</i>	<i>xvii</i>

1	Metal powder injection molding (MIM): key trends and markets	1
	R. M. GERMAN, San Diego State University, USA	
1.1	Introduction and background	1
1.2	History of success	2
1.3	Industry structure	4
1.4	Statistical highlights	6
1.5	Industry shifts	9
1.6	Sales situation	10
1.7	Market statistics	12
1.8	Metal powder injection molding market by region	13
1.9	Metal powder injection molding market by application	14
1.10	Market opportunities	15
1.11	Production sophistication	21
1.12	Conclusion	23
1.13	Sources of further information	23
Part I	Processing	27
2	Designing for metal injection molding (MIM)	29
	D. F. HEANEY, Advanced Powder Products, Inc., USA	
2.1	Introduction	29
2.2	Available materials and properties	31
2.3	Dimensional capability	35
2.4	Surface finish	35
2.5	Tooling artifacts	35
2.6	Design considerations	40

2.7	Sources of further information	49
3	Powders for metal injection molding (MIM)	50
	D. F. HEANEY, Advanced Powder Products, Inc., USA	
3.1	Introduction	50
3.2	Ideal MIM powder characteristics	51
3.3	Characterizing MIM powders	55
3.4	Different MIM powder fabrication techniques	57
3.5	Different alloying methods	61
3.6	References	62
4	Powder binder formulation and compound manufacture in metal injection molding (MIM)	64
	R. K. ENNETI, Global Tungsten and Powders, USA and V. P. ONBATTUVELLI and S. V. ATRE, Oregon State University, USA	
4.1	Introduction: the role of binders	64
4.2	Binder chemistry and constituents	66
4.3	Binder properties and effects on feedstock	70
4.4	Mixing technologies	84
4.5	Case studies: lab scale and commercial formulations	88
4.6	References	89
5	Tooling for metal injection molding (MIM)	93
	G. SCHLIEPER, Gammatec Engineering GmbH, Germany	
5.1	Introduction	93
5.2	General design and function of injection molding machines	94
5.3	Elements of the tool set	96
5.4	Tool design options	98
5.5	Special features and instrumentation	104
5.6	Supporting software and economic aspects	106
5.7	Sources of further information	108
6	Molding of components in metal injection molding (MIM)	109
	D. F. HEANEY, Advanced Powder Products, Inc., USA and C. D. GREENE, Treemen Industries, Inc., USA	
6.1	Introduction	109
6.2	Injection molding equipment	110
6.3	Auxiliary equipment	115
6.4	Injection molding process	116
6.5	Common defects in MIM	129

viii	Contents	
6.6	References	131
7	Debinding and sintering of metal injection molding (MIM) components	133
	S. BANERJEE, DSH Technologies LLC, USA and C. J. JOENS, Elnik Systems LLC, USA	
7.1	Introduction	133
7.2	Primary debinding	136
7.3	Secondary debinding	144
7.4	Sintering	147
7.5	MIM materials	161
7.6	Setting	167
7.7	MIM furnaces	169
7.8	Furnace profiles	176
7.9	Summary	176
7.10	Acknowledgements	178
7.11	References	178
Part II	Quality issues	181
8	Characterization of feedstock in metal injection molding (MIM)	183
	H. LOBO, DatapointLabs, USA	
8.1	Introduction	183
8.2	Rheology	186
8.3	Thermal analysis	190
8.4	Thermal conductivity	193
8.5	Pressure–volume–temperature (PVT)	194
8.6	Conclusions	195
8.7	Acknowledgments	196
8.8	References	196
9	Modeling and simulation of metal injection molding (MIM)	197
	T. G. KANG, Korea Aerospace University, Korea, S. AHN, Pusan National University, Korea, S. H. CHUNG, Hyundai Steel Co., Korea, S. T. CHUNG, CetaTech Inc., Korea, Y. S. KWON, CetaTech, Inc., Korea, S. J. PARK, POSTECH, Korea and R. M. GERMAN, San Diego State University, USA	
9.1	Modeling and simulation of the mixing process	197
9.2	Modeling and simulation of the injection molding process	203

9.3	Modeling and simulation of the thermal debinding process	215
9.4	Modeling and simulation of the sintering process	224
9.5	Conclusion	230
9.6	References	231
10	Common defects in metal injection molding (MIM)	235
	K. S. HWANG, National Taiwan University, Taiwan, R.O.C.	
10.1	Introduction	235
10.2	Feedstock	236
10.3	Molding	238
10.4	Debinding	243
10.5	Sintering	250
10.6	Conclusion	251
10.7	References	252
11	Qualification of metal injection molding (MIM)	254
	D. F. HEANEY, Advanced Powder Products, Inc., USA	
11.1	Introduction	254
11.2	The metal injection molding process	255
11.3	Product qualification method	255
11.4	MIM prototype methodology	257
11.5	Process control	258
11.6	Understanding of control parameters	260
11.7	Conclusion	263
11.8	Sources of further information	263
12	Control of carbon content in metal injection molding (MIM)	265
	G. HERRANZ, Universidad de Castilla-La Mancha, Spain	
12.1	Introduction: the importance of carbon control	265
12.2	Methods of controlling carbon, binder elimination and process parameters affecting carbon control	267
12.3	Control of carbon in particular materials	276
12.4	Material properties affected by carbon content	297
12.5	References	297
Part III	Special metal injection molding processes	305
13	Micro metal injection molding (MicroMIM)	307
	V. PIOTTER, Karlsruhe Institute of Technology (KIT), Germany	

13.1	Introduction	307
13.2	Potential of powder injection molding for micro-technology	308
13.3	Micro-manufacturing methods for tool making	309
13.4	Powder injection molding of micro components	313
13.5	Multi-component micro powder injection molding	325
13.6	Simulation of MicroMIM	328
13.7	Conclusion and future trends	330
13.8	Sources of further information and advice	331
13.9	References	332
14	Two-material/two-color powder metal injection molding (2C-PIM)	338
	P. SURI, Heraeus Materials Technology LLC, USA	
14.1	Introduction	338
14.2	Injection molding technology	338
14.3	Debinding and sintering	341
14.4	2C-PIM products	344
14.5	Future trends	346
14.6	References	347
15	Powder space holder metal injection molding (PSH-MIM) of micro-porous metals	349
	K. NISHIYABU, Kinki University, Japan	
15.1	Introduction	349
15.2	Production methods for porous metals	351
15.3	Formation of micro-porous structures by the PSH method	354
15.4	Control of porous structure with the PSH method	360
15.5	Liquid infiltration properties of micro-porous metals produced by the PSH method	369
15.6	Dimensional accuracy of micro-porous MIM parts	374
15.7	Functionally graded structures of micro-porous metals	379
15.8	Conclusion	388
15.9	Acknowledgements	388
15.10	References	389
Part IV	Metal injection molding of specific materials	391
16	Metal injection molding (MIM) of stainless steels	393
	J. M. TORRALBA, Institute IMDEA Materials, Universidad Carlos III de Madrid, Spain	
16.1	Introduction	393
16.2	Stainless steels in metal injection molding (MIM)	396

16.3	Applications of MIM stainless steels	403
16.4	Acknowledgements	409
16.5	References	410
17	Metal injection molding (MIM) of titanium and titanium alloys	415
	T. EBEL, Helmholtz-Zentrum Geesthacht, Germany	
17.1	Introduction	415
17.2	Challenges of MIM of titanium	416
17.3	Basics of processing	422
17.4	Mechanical properties	425
17.5	Cost reduction	432
17.6	Special applications	435
17.7	Conclusion and future trends	440
17.8	Sources of further information	441
17.9	References	441
18	Metal injection molding (MIM) of thermal management materials in microelectronics	446
	J. L. JOHNSON, ATI Firth Sterling, USA	
18.1	Introduction	446
18.2	Heat dissipation in microelectronics	447
18.3	Copper	451
18.4	Tungsten-copper	461
18.5	Molybdenum-copper	474
18.6	Conclusions	482
18.7	References	482
19	Metal injection molding (MIM) of soft magnetic materials	487
	H. MIURA, Kyushu University, Japan	
19.1	Introduction	487
19.2	Fe-6.5Si	489
19.3	Fe-9.5Si-5.5Al	497
19.4	Fe-50Ni	506
19.5	Conclusion	513
19.6	References	514

20	Metal injection molding (MIM) of high-speed tool steels	516
	N. S. MYERS, Kennametal Inc., USA and D. F. HEANEY, Advanced Powder Products, Inc., USA	
20.1	Introduction	516
20.2	Tool steel MIM processing	517
20.3	Mechanical properties	523
20.4	References	525
21	Metal injection molding (MIM) of heavy alloys, refractory metals, and hardmetals	526
	J. L. JOHNSON, ATI Firth Sterling, USA, D. F. HEANEY, Advanced Powder Products, Inc., USA and N. S. Myers, Kennametal Inc., USA	
21.1	Introduction	526
21.2	Applications	527
21.3	Feedstock formulation concerns	529
21.4	Heavy alloys	534
21.5	Refractory metals	544
21.6	Hardmetals	554
21.7	References	560
	<i>Index</i>	569