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6.3 Auxiliary equipment6.4 Injection molding process; 6.5 Common defects in MIM; 6.6 References; 7 Debinding and sintering of metal injection molding (MIM) components:; 7.1 Introduction; 7.2 Primary debinding; 7.3 Secondary debinding; 7.4 Sintering; 7.5 MIM materials; 7.6 Settering; 7.7 MIM furnaces; 7.8 Furnace profiles; 7.9 Summary; 7.10 Acknowledgements; 7.11 References; Part II Quality issues; 8 Characterization of feedstock in metal injection molding (MIM); 8.1 Introduction; 8.2 Rheology; 8.3 Thermal analysis; 8.4 Thermal conductivity; 8.5 Pressure-volume-temperature (PVT)
8.6 Conclusions8.7 Acknowledgments; 8.8 References; 9 Modeling and simulation of metal injection molding (MIM); 9.1 Modeling and simulation of the mixing process; 9.2 Modeling and simulation of the injection molding process; 9.3 Modeling and simulation of the thermal debinding process; 9.4 Modeling and simulation of the sintering process; 9.5 Conclusion; 9.6 References; 10 Common defects in metal injection molding (MIM); 10.1 Introduction; 10.2 Feedstock; 10.3 Molding; 10.4 Debinding; 10.5 Sintering; 10.6 Conclusion; 10.7 References; 11 Qualification of metal injection molding (MIM)
11.1 Introduction

Sommario/riassunto

Metal injection molding combines the most useful characteristics of powder metallurgy and plastic injection molding to facilitate the production of small, complex-shaped metal components with outstanding mechanical properties. The Handbook of metal injection molding provides an authoritative guide to this important technology and its applications.Part one discusses the fundamentals of the metal injection molding process with chapters on topics such as component design, important powder characteristics, compound manufacture, tooling design, molding optimization, debinding, and sintering