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Titolo	Metal foams [e-book] : a design guide / M.F. Ashby ... [et al.]
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Altri autori (Persone)	Ashby, Michael F.
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Nota di bibliografia	Includes bibliographical references and index
Nota di contenuto	Introduction; Making Metal Foams; Characterization Methods; Properties of Metal Foams; Design Analysis for Material Selection; Design Formulae for Simple Structures; A Constitutive Model for Metal Foams; Design for Creep with Metal Foams; Sandwich Structures; Energy Management: Packaging and Blast Protection; Sound Absorption and Vibration Suppression; Thermal Management and Heat Transfer; Electrical Properties of Metal Foams; Cutting, Finishing and Joining; Cost Estimation and Viability; Case Studies; Suppliers of Metal Foams; Web Sites; Index
Sommario/riassunto	Metal foams are at the forefront of technological development for the automotive, aerospace, and other weight-dependent industries. They are formed by various methods, but the key facet of their manufacture is the inclusion of air or other gaseous pockets in the metal structure. The fact that gas pockets are present in their structure provides an obvious weight advantage over traditionally cast or machined solid metal components. The unique structure of metal foams also opens up more opportunities to improve on more complex methods of producing parts with space inclusions such as sand-casting. This guide provides information on the advantages metal foams possess, and the applications for which they may prove suitable. Offers a concise description of metal foams, their manufacture, and their advantages in

industry Provides engineers with answers to pertinent questions  
surrounding metal foams Satisfies a major need in the market for  
information on the properties, performance, and applications of these  
materials

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