Edited by Ulrich Bröckel,
Willi Meier, and Gerhard Wagner

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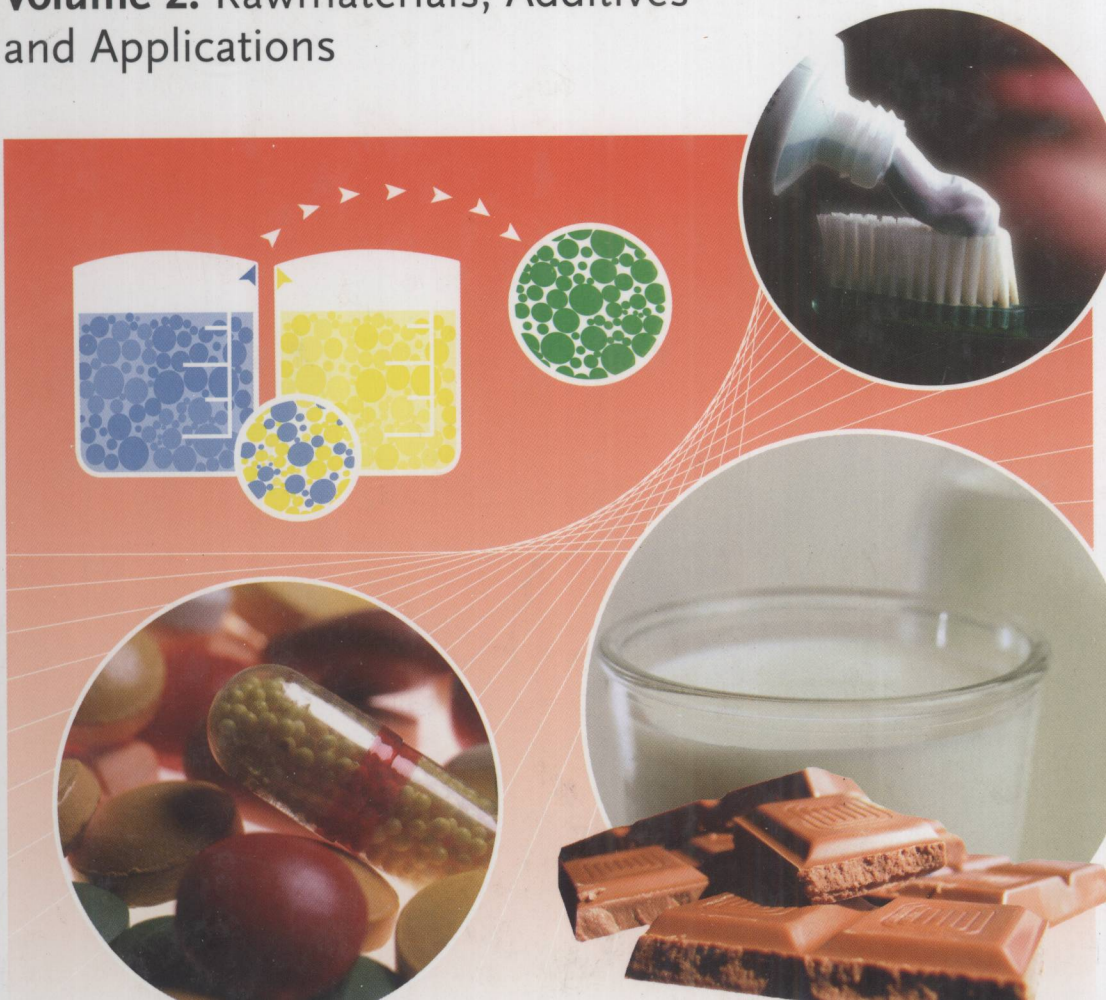
Product Design and Engineering

Best Practices

Volume 2: Rawmaterials, Additives and Applications



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Volume 2: Rawmaterials, Additives and Applications

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Preface

During the EFCE 4 in Granada in September 2003 the 1st Symposium of Product Design and Engineering took place and the section group "Product Design and Engineering" was founded, showing the growing interest in the field of product design.

The first idea for this set of books about "Product Design" arose in the EFCE section group "Product Design and Engineering" meetings. Since the outstanding book of Cussler and Moggridge "Chemical Product Design" was published in 2001 many papers have been presented at conferences and submitted to journals that have the term 'product design' in their titles. Actually, most of them present scientific results and new technologies under the umbrella of product design using a very broad interpretation of the word product but not considering any product-design principles. For this reason we saw a need to summarize the basic technologies and typical product examples in the field of product design in one book.

In this set of books we do not claim to describe and discuss everything that belongs or even might belong to the topic of product design and engineering – that would of course be impossible, understanding how broad and multifaceted this topic is. Nevertheless, the scope was to give an overview of the basic knowledge and the related basic technologies, which are essential in the product-design area as well as to discuss in more detail how product design is carried out in reality. Finally, we want to give typical and proven examples for product design to describe recent applications that turn the technologies into customer-oriented products.

To provide a reliable description of the state-of-the-art in product design and engineering we asked, in the first volume of the book series, experts from universities, research institutes and industry to present the state of typical technologies. In the second volume we asked experts from industry for examples of successful product developments using product-design principles. Our very special thanks go to all the authors. Without their outstanding engagement this book set would not have been possible.

In particular, we are indebted to Drs Pelc and Muenz from Wiley-VCH, who worked with us on the concept and on the development and implementation of the book.

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