

# HANSER

Preface

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Mixing of Rubber Compounds

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# Preface

Mixing of rubber compounds is a multi-discipline task. This book is based on a course on the compounding of elastomers. It describes the machine aspects, the relevant processes in a batch mixer, the polymer-specific requirements and the use of the internal mixer as a reactor. As the mixing process itself has a severe influence on the final product properties, the correlation of product quality and the outcome of the compounding process are widely discussed. Also the scientific background of the dispersion of fillers as well as the relevant conditions in physical and chemical terms are described in depth.

With this volume the authors offer on the one hand a well-rounded information package to beginners in the area of rubber mixing. On the other hand, experienced compounders should be able to deepen as well as widen their horizons of expertise. As the variety of rubber compounds is infinite, the authors concentrated on basic processes. Explanations of certain mechanisms, however, are also demonstrated including typical practical examples and their results.

As editor, I thank all authors for their investment of a great amount of private time into this work. I must also thank Mrs. Monika Stueve, Dr. Christine Strohm and Dr. Harald Sambale for their endurance, as the finalizing of this book took much longer than originally planned. Last but not least I thank my family and especially my wife for bearing with office work instead of leisure time.

Freudenberg, Germany  
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