ENGINEERING WITH POLYMERS IS A GROWING TECHNICAL FIELD WHICH REQUIRES SPECIAL KNOWLEDGE. FILLING A NEED, THIS READY REFERENCE BRINGS TOGETHER THE HARD-TO-GET AND RECENTLY ACQUIRED KNOWLEDGE USUALLY ONLY FOUND SCATTERED IN THE ORIGINAL LITERATURE. AT THE BEGINNING, THE REFERENCE INTRODUCES PLASTICS AS A CLASS OF TECHNICAL MATERIALS, GIVES AN OVERVIEW OF THEIR PROPERTIES, PRESENTS PLASTICS PROCESSING AND ITS POSSIBLE INFLUENCE ON THE ACHIEVABLE QUALITY OF PLASTIC PARTS. Afterwards, plastics testing is presented as a separate, practical-scientific field of work. The possibilities and fields of application of plastics testing will be discussed. This is followed by a comprehensive treatment of the individual, relevant test areas for the characterization and qualification of plastics and plastic molded parts made from them, with descriptions of the corresponding, practical test methods. A comprehensive index provides easy access to relevant information for successful engineering with plastics and suitable methods for material characterization and for quality assurance and damage analysis of parts.

Written by experienced academics and industrial researchers and developers who know the problems of plastics engineers in their daily work - and the solutions - inside out, this book offers first-hand practical knowledge and intensive discussion. The book is aimed at industry, scientists and students involved in plastics and plastic engineering and aims to help them gain the necessary understanding of polymer materials and knowledge of practical testing and evaluation of plastics.
ABOUT THE AUTHOR

Achim Frick has obtained his academic degrees (MSc, PhD) from the University of Stuttgart, Germany. He spent several years in industry before taking up his present professorship at Aalen University. Professor Frick is Head of the Institute of Polymer Science and Processing (iPSP) and has authored more than eighty scientific papers and three book publications. Being also Head of the Polymer Engineering Transfer Center PETZ, he has served national and international industries with more than 400 material science reports. Since more than ten years he is also offering training courses to industry in polymer engineering subjects.

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