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Plastics Engineering, Third Edition



Synopsis

This book presents in a single volume the basic essentials of the properties and processing behaviour of plastics and composites. The aim is to give engineers and technologists a sound understanding of basic principles without the introduction of unduly complex levels of mathematics or chemistry and thereby set plastics in their proper context as engineering materials. This textbook pioneered the approach whereby both properties and processing of reinforced and unreinforced plastics are covered in a single volume. It assumes no prior knowledge of plastics, and emphasises the practical aspects of the subject. In this third edition over half the book has been re-written and the remainder has been updated and re-organised. Early chapters give an introduction to the types of plastics which are currently available and describe how a designer goes about the selection of a plastic for a particular application. Later chapters lead the reader into more advanced aspects of mechanical design and analysis of polymer melt flow. All techniques developed are illustrated by numerous worked examples, and problems are given at the end of each chapter - the solutions to which form one of the appendices.

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Customer Reviews

"A standard text which has been considerably improved in this latest edition""Students consider the book to be highly readable.""The book provides a comprehensive and readable introduction to the processing and mechanical behaviour of plastics and composites.""The book is well written and covers most our syllabus in the new module of "Plastic Technology"."

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While this book give good general coverage of plastics and design with plastics, the industry is highly proprietary. Plastic properties - fatigue, stress, elongation do not behave as per standard mechanical engineering training. Plastics are often used in composite materials further complicating calculation and estimations of their resiliency, elongation, deformation, etc. the book is a good start for engineers to understand plastic material behavior.

Good thanks

Even though the page printing looks like original Telex printing from an early printer, this book is a great tool for those beginning coursework in polymers. This takes you through the mathematics into mold design. The why's and why'not of design. Excellent reference book, too.

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Answers to Self Assessment Questions

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