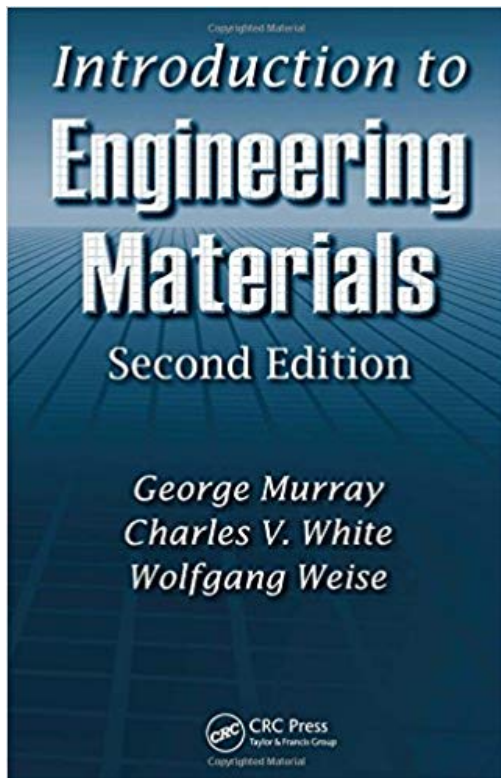


# Introduction to Engineering Materials, 2nd Edition (Materials Engineering) by George Murray, Charles V. White, Wolfgang Weise



**ISBN:** 1574446835

**ISBN13:** 978-1574446838

**Author:** George Murray, Charles V. White, Wolfgang Weise

**Book title:** Introduction to Engineering Materials, 2nd Edition (Materials Engineering)

**Pages:** 544

**Publisher:** CRC Press; 2 edition (September 7, 2007)

**Language:** English

**Category:** Engineering

**Size PDF version:** 1671 kb

**Size ePUB version:** 1861 kb

**Size FB2 version:** 1149 kb

**Other formats:** azw doc docx lit

Designed for the general engineering student, **Introduction to Engineering Materials, Second Edition** focuses on materials basics and provides a solid foundation for the non-materials major to understand the properties and limitations of materials. Easy to read and understand, it teaches the beginning engineer what to look for in a particular material, offers examples of materials usage, and presents a balanced view of theory and science alongside the practical and technical applications of material science.

Completely revised and updated, this second edition describes the fundamental science needed to classify and choose materials based on the limitations of their properties in terms of temperature, strength, ductility, corrosion, and physical behavior. The authors emphasize materials processing, selection, and property measurement methods, and take a comparative look at the mechanical properties of various classes of materials. Chapters include discussions of atomic structure and bonds, imperfections in crystalline materials, ceramics, polymers, composites, electronic materials, environmental degradation, materials selection, optical materials, and semiconductor processing. Filled with case studies to bring industrial applications into perspective with the material being discussed, the text also includes a pictorial approach to illustrate the fabrication of a composite.

Consolidating relevant topics into a logical teaching sequence, **Introduction to Engineering Materials, Second Edition** provides a concise source of useful information that can be easily translated to the working environment and prepares the new engineer to make educated materials selections in future industrial applications.



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