# Physical Properties of Materials for Engineers: The Ultimate Guide to Understanding Material Behavior

Materials are the building blocks of our world, from the concrete that forms our infrastructure to the polymers that power our electronics.

Understanding the physical properties of materials is essential for engineers who design and build products, structures, and systems.

"Physical Properties of Materials for Engineers" is a comprehensive textbook that provides a thorough grounding in the physical properties of materials. This book is an invaluable resource for students, researchers, and practicing engineers alike.



### **Physical Properties of Materials for Engineers**

★ ★ ★ ★ ★ 5 out of 5
Language : English
File size : 70960 KB

by Daniel D. Pollock

Screen Reader: Supported Print length : 608 pages



#### What You'll Learn

In "Physical Properties of Materials for Engineers," you'll learn about:

\* The different types of materials, including metals, ceramics, polymers, and composites \* The structure of materials, from the atomic level to the

macroscopic level \* The mechanical properties of materials, including strength, stiffness, and toughness \* The thermal properties of materials, including conductivity, specific heat, and expansion \* The electrical properties of materials, including conductivity, resistivity, and dielectric constant \* The optical properties of materials, including absorption, reflection, and refraction

### Why This Book Is Important

Understanding the physical properties of materials is essential for engineers for several reasons:

\* It allows engineers to design products and structures that are safe, reliable, and efficient. \* It helps engineers to select the right materials for a particular application. \* It enables engineers to predict the behavior of materials under different conditions.

#### **Features of the Book**

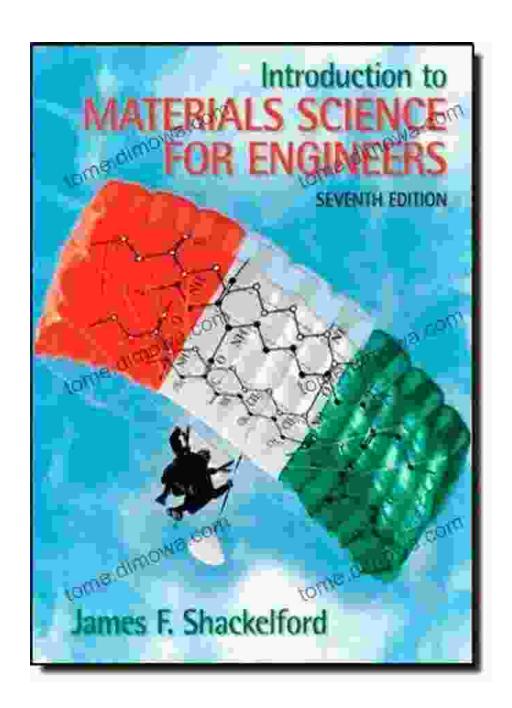
\* Comprehensive coverage of all major physical properties of materials \* Clear and concise explanations \* Numerous examples and exercises to help you apply your knowledge \* Up-to-date information on the latest advances in materials science

#### **About the Author**

James F. Shackelford is a professor of materials science and engineering at the University of California, Davis. He is a leading expert in materials science and has authored numerous books and articles on the subject.

"Physical Properties of Materials for Engineers" is the definitive guide to understanding the physical properties of materials. This book is an

essential resource for engineers who design and build products, structures, and systems.



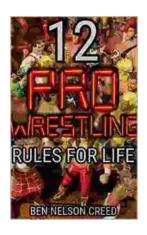


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