

Materials Science

Lecture 13

Lebanese University - Faculty of Engineering – Branch 3

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Lecture 13:

© Chap 5: Mechanical Behavior

5.1. Introduction

5.2. Concepts of stress and strain

Elastic deformation

5.3. Stress–Strain behavior

5.4. Anelasticity

5.5. Elastic properties of materials

Plastic deformation

5.6. Tensile properties

5.7. True stress and Strain

5.8. Elastic recovery after plastic deformation

5.9. Compressive, shear, and torsional deformations

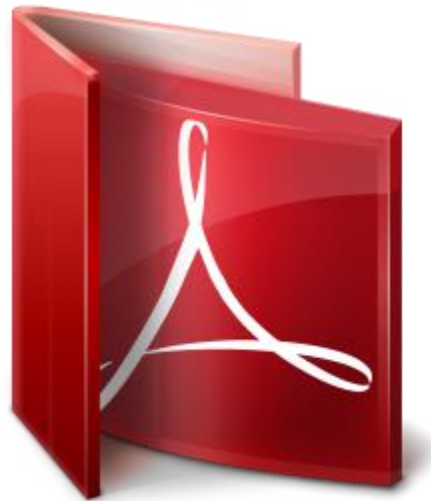
5.10. Hardness

Property variability and design/safety factors

5.11. Variability of material properties

5.12. Design/safety factors

5.6. Tensile properties



See the attached PDF file