

# Building Materials

- The evaluation of building materials should extend beyond their functional, economic, and aesthetic aspects and include assessing the environmental consequences associated with their selection and use.

## Concrete

- concrete is made by mixing cement and various mineral aggregates with sufficient water to cause the cement to set and bind the entire mass. While concrete is inherently strong in compression, steel reinforcement is required to handle tensile and shear stresses.

• water-cement ratio

## Steel

- steel refers to any of various iron-based alloys having a carbon content less than that of cast iron and more than that of wrought iron, and having qualities of strength, hardness, and elasticity varying according to composition and heat treatment.

## Non-ferrous Metals

- non-ferrous metals contain no iron. Aluminum, copper, and lead are non-ferrous metals commonly used in building construction.