

IS 4412: 1981 SPECIFICATION FOR COPPER WIRES FOR GENERAL ENGINEERING PURPOSES

Specification for copper wires for General Engineering Purposes specifies the quality requirements for **copper wires** used in a variety of engineering applications. These products are commonly used in the form of rivets, bolts and nuts, wire cloth and nails.

Consumers seek copper wires that meet **precise diameter tolerances**, ensuring easy integration into engineering designs without the need for further processing. **High tensile strength** and **elongation** are critical for the reliability and durability of components. A **smooth, defect-free surface** is crucial for both **aesthetic** and **functional** reasons. Consumers expect the materials to be free from cracks, twists, or imperfections that could affect performance. The **chemical composition** of **copper wires** is a critical factor because it directly influences the **mechanical properties**. The **chemical composition** determines the overall **performance** and **durability** of copper wire in various **engineering applications**.

IS 4412:1981 sets forth **stringent diameter tolerances** for copper wires ensuring high accuracy. It specifies the **mechanical properties**, such as **tensile strength** and **elongation**. The standard also mandates a **smooth surface finish, free from defects**, and emphasizes the importance of **alloy composition**. These specifications ensure that the product meets the high standards expected by consumers in **engineering applications**.