

IS 7814 : 2005 Phosphor bronze sheet, strip and foil - Specification (Second Revision)

This Indian Standard outlines the requirements for four grades of rolled phosphor bronze sheet, strip, and foil. These materials are commonly used in applications requiring high strength and elongation, such as deep drawing, stamping, spring devices, and electrical terminals and connectors. The standard specifies chemical composition limits, with a focus on phosphorus, lead, iron, and zinc content, ensuring material consistency. Mechanical properties, including tensile strength, elongation, and hardness, are defined for various material thicknesses and conditions, ranging from annealed (soft) to extra spring hard.

The standard also outlines bend test requirements, specifying the bend angle and radius based on material thickness and condition, ensuring formability and durability. Dimensional tolerances for thickness, width, length, and camber are also specified to ensure consistent product dimensions. The standard includes detailed sampling procedures and criteria for conformity assessment, covering visual, dimensional, chemical, and mechanical property requirements.