

## **Indian Standard IS 11946:1987- Specification for soft magnetic iron strips**

This standard defines **cold rolled soft magnetic iron strips**, primarily used for electromagnetic purposes in various electrical machinery and apparatus. These strips are essential components in devices like relay yokes, armatures, and other parts of electrical machinery and apparatus. The standard aims to streamline the requirements for these materials, which are often referred to as 'commercially pure' or 'magnetically soft' iron. They find widespread use in various applications such as DC relays, loudspeakers, electromagnets, magnetic clutches, and brakes. They also serve as crucial components in magnetic circuits found in instruments, control apparatus, pole pieces, and other parts for generators and motors.

Consumers of soft magnetic iron strips expect **high-quality materials** that meet specific performance standards. This includes **Precise chemical composition, Sound physical condition, Excellent mechanical properties, Desirable magnetic properties**. This standard also specifies **Strict dimensional tolerances** to ensure the strips fit perfectly in their intended applications.

The standard addresses these expectations by outlining specific requirements and test methods for each quality parameter. For instance, it specifies the acceptable range for each chemical constituent, outlines procedures for tensile strength, hardness, and bend tests, and defines the methods for determining coercive force, ageing effects, and other magnetic properties. By adhering to this standard, manufacturers can assure consumers of the quality and reliability of their soft magnetic iron strips.