

Summary for IS 9294: 1979 - Cold-Rolled Stainless-Steel Strips for Razor Blades

Title and Standard Number:

IS 9294: 1979 - Cold-Rolled Stainless-Steel Strips for Razor Blades

Scope:

This standard specifies the requirements for cold-rolled stainless-steel strips used in the manufacture of razor blades. It includes chemical composition, mechanical properties, and dimensional tolerances essential for producing sharp, durable, and corrosion-resistant razor blades.

Applications:

Cold-rolled stainless-steel strips conforming to IS 9294 are primarily used in the production of razor blades, where precision, sharpness, and corrosion resistance are critical for performance and safety.

Key Specifications:

The standard outlines the following:

- **Material Composition:** Strips are made from high-quality stainless steel with controlled levels of carbon, chromium, and other elements to ensure hardness and corrosion resistance.
- **Mechanical Properties:** Minimum hardness requirements are specified to ensure durability, along with tensile strength for maintaining sharpness during use.
- **Thickness and Width:** Standard thickness typically ranges between 0.076 mm to 0.15 mm, with strict tolerances to ensure uniformity across the strips.

Physical and Technical Specifications:

IS 9294 mandates specific technical characteristics, such as:

- **Surface Finish:** The strips must have a smooth, polished surface to minimize friction and maximize sharpness.
- **Edge Condition:** Edges should be free from burrs and defects to allow precision cutting and reduce the risk of blade damage.
- **Testing:** Strips are subjected to hardness, tensile, and corrosion resistance tests to verify quality and compliance with the standard.

Safety and Handling:

The standard emphasizes careful handling and storage to avoid surface contamination or edge damage, ensuring the material's sharpness and durability in razor blade applications.

Marking and Packaging:

Each strip bundle is marked with the manufacturer's details, material grade, and compliance with IS 9294.

Packaging should protect strips from damage and exposure to moisture, which could affect corrosion resistance.

Example of a Stainless-Steel Strip Specification:

For example, a stainless-steel strip with a thickness of 0.1 mm, a hardness level within the specified range, and a chromium content suitable for corrosion resistance would meet IS 9294 standards for razor blade manufacturing.

This summary captures the primary technical requirements, physical properties, and handling guidelines for cold-rolled stainless-steel strips as defined in IS 9294: 1979, ensuring suitability for precision applications in razor blade production.