

## **IS:1835-1976 - Standard Specifications for Round Steel Wire in Ropes**

Round steel wires, essential for making wire ropes, are widely used in industries requiring reliable strength and flexibility for lifting, pulling, and structural applications. Consumers expect these wires should be durable, consistent in quality, corrosion resistant and able to withstand stress under variable conditions. IS:1835-1976 provides a comprehensive specification to meet these expectations, covering five grades of round steel wire with diameters ranging from 0.20 mm to 5.0 mm.

The standard addresses the product's chemical composition ensuring durability, tensile strength ensuring flexibility, and torsion ensuring capability requirements to ensure its robustness and reliability. For instance, it specifies chemical composition limits based on the wire's tensile designation, ensuring that the material used can handle the required loads. The standard also mandates cold drawing as the primary manufacturing method for these wires, supporting uniform strength and flexibility across the length.

Three types of steel wire are defined: bright wire (ungalvanized) and galvanized wires (Types B, AB, and A), each meeting specific coating and performance requirements. Galvanized wires, for example, must conform to standards for zinc coating, ensuring resistance against corrosion, which is crucial in outdoor or moisture-exposed environments.

IS:1835-1976 also includes rigorous testing requirements, such as wrapping and adhesion tests, to verify the mechanical properties of wire. Tolerances are outlined for wire diameters, and a retest protocol ensures any non-compliant coils are re-evaluated.

By setting high-quality benchmarks and inspection processes, IS:1835-1976 helps ensure that consumers receive reliable, high-performance steel wires, meeting industrial demands for safety, durability, and consistency.