

## IS 6902:1973- Steel Wires for Spokes

The standard establishes specific guidelines to ensure uniformity in the quality of steel wires for spokes, which is crucial for safe and long-lasting spoke performance. Consistent quality in spoke wires minimizes breakage, deformation, and wear, thereby enhancing the stability and lifespan of wheels in vehicles.

IS 6902 lays down the requirement for chemical composition, Mechanical requirement (tensile test, bend test), Dimensions and freedom from defects along with the requirement of zinc coating.

### **Benefits of ISI marked (as per IS 6902) Steel Wires for Spokes**

1. **High Strength and Durability:** Steel spokes offer excellent tensile strength, supporting heavy loads and resisting bending under pressure.
2. **Corrosion Resistance:** High-quality steel and surface finishes, often with protective coatings, make the spokes resistant to rust and environmental wear.
3. **Flexible Design:** Steel wires can be manufactured in varying thicknesses to meet specific load-bearing requirements, providing versatility for different vehicles.
4. **Cost-Effectiveness:** Steel is affordable, making it an economical choice for mass production and long-term use in wheels.
5. **Enhanced Safety:** Consistent quality standards reduce spoke failure, enhancing safety for users.

Steel wires for spokes are used in:

1. **Bicycles and Motorcycles:** Essential for wheel construction, providing support and stability.
2. **Wheelchairs:** Ensures smooth operation and reliability for personal mobility.
3. **Automotive Spare Wheels:** Occasionally used in lightweight, spare wheels for stability.
4. **Other Wheeled Equipment:** Suitable for carts and various machines requiring durable wheels.