

## **Indian Standard IS 6603 -Your Guide to Stainless Steel Long Products**

Stainless Steel is often associated with Corrosion Resistance. However, stainless steel can do much more thanks to its other properties such as Electrical, Thermal Conductivity and Magnetism, ability to withstand large temperature ranges, Strength and toughness, Aesthetics, Environmental advantages and fire resistance.

Stainless Steel Long Products include any stainless steel obtained from the hot rolling of blooms and ingots to produce semis, bars and wire rods.

These long products are used in a wide range of applications, including building and construction, transportation, domestic appliances, medical devices, and energy sectors.

**IS 6603:2024** covers semi-finished products, hot or cold formed bars, wire rods and bright bars of various grades of corrosion resisting steels for general purposes.

Key Properties required in Stainless Steel Long Products are addressed by IS 6603:2024 through the following aspects:

- 1) Resistance to Intergranular Corrosion Test for ensuring Corrosion Resistance.
- 2) Chemical Composition for ensuring Electrical, Thermal Conductivity and Magnetism.
- 3) Mechanical Properties such as Tensile Strength, Elongation after fracture for ensuring Strength and Toughness.
- 4) Impact Energy for ensuring its ability to with standard large temperature ranges
- 5) Freedom from Defects (Surface Quality) for ensuring Aesthetics

**Ministry of Steel, Govt of India**, has mandated that all Stainless-Steel Long Products shall comply to IS 6603:2024 before being sold, manufactured or imported in India and shall bear the BIS Standard Mark (ISI Mark).

In summary, **IS 6603:2024** ensures that Stainless Steel Long Products are of utmost quality and durability.