



## IS 2365:2018 Steel Wire Suspension Ropes for Lifts, Elevators and Hoists — Specification

**Steel wire suspension ropes** are critical components in the **operation of lifts, elevators, and hoists**. Wire rope is a composite structure, made up of a number of individual units, called wires, which are manufactured in such a manner that they always exist and work in precise relationship with one another. Due to its design and a structure made up of many individual steel wires, steel wire rope offers advantages to clearly qualify it for use on lifts, elevators and hoists.

Steel Wire Suspension Ropes need to meet the application requirements: the typical parameters considered are size and tolerance, **rope and strands construction and strength of the wires**. Ensuring their quality and reliability is paramount for safety and efficiency. Ropes require **high strength and endurance, exceptional flexibility** and grip characteristics, allowing for smooth and efficient operation. The mechanical testing ensures the wire ropes are safe and reliable.

IS 2365:2018 covers steel wire ropes for use with lifts, elevators and hoists having cars or platforms carrying passengers or goods and working in guides. The rope constructions of 6X19M(12/6-1), 6X19S(9-9-1), 6X25F(12-6 F-6-1), 8X19S(9-9-1) and 8X25F(12-6 F-6-1), single tensile grade ropes of 1230, 1420 and 1570, dual tensile grade ropes of 1180/1770, 1370/1770 and 1570/1770 with core of fibre/steel for sizes ranging from 6 mm to 20 mm are covered in the standard. **Nominal Diameter, tolerances on sizes, minimum breaking load, requirements of core, joints, mass, galvanizing and tensile grade** are specified in the standard.

The **DPIIT Quality Control Order** mandates that all Steel Wire Suspension Ropes for Lifts, Elevators and Hoists sold, manufactured, or imported in India comply with IS 2365 and display the **BIS Standard Mark**, ensuring high-quality, reliability and safety.