



## **IS 6006:2014 - Uncoated Stress Relieved Strand for Prestressed Concrete - Specification**

Uncoated stress-relieved steel strands are essential for pre-stressed concrete structures, providing the controlled tension required to reinforce and strengthen concrete in large-scale construction. These strands play a critical role in ensuring the durability and stability of structures like bridges, high-rise buildings, and industrial facilities. High-quality steel strands should deliver excellent tensile strength, flexibility, and resilience to withstand heavy loads and long-term stress without compromising structural integrity.

**Indian Standard IS 6006:2014** outlines the specifications for uncoated stress-relieved steel strands used in pre-stressed concrete, ensuring they meet stringent quality and safety criteria. This standard covers the requirements for **manufacture, supply and testing of uncoated, stress relieved, high tensile steel strands for use in pre-stressed concrete**. The following types of strands are covered:

- a) Two-wire strand
- b) Three-wire strand
- c) Seven-wire strand Class 1 and Class 2

### **Key Quality Parameters in IS 6006:2014**

- 1) Chemical composition
- 2) Strand
- 3) Nominal diameter Tolerances
- 4) Breaking strength, Proof load and Elongation
- 5) Relaxation
- 6) Workmanship and finish

To guarantee quality, each strand must be marked with **essential details, including manufacturer identification and IS 6006 compliance, ensuring traceability**. General requirements relating to the supply of material related to this standard and its inspection and testing needs to mandatorily conform to IS 1387 “General requirements for the supply of metallurgical materials”.

The **Ministry of Steel has issued the Steel and Steel Products(Quality Control) Order, 2020** which mandates that all Uncoated stress relieved strand for Pre-stressed concrete manufactured, sold and stored in the country must mandatorily comply with IS 6006, bearing the BIS Standard Mark for safety assurance.

In summary, IS 6006:2014 provides the assurance that uncoated stress-relieved steel strands used in pre-stressed concrete are of high strength and durability, making them reliable components for safe, lasting construction projects.