



IS 2193 : 1986 SPECIFICATION FOR PRECAST PRESTRESSED CONCRETE STREET LIGHTING POLES

The product defined in IS 2193 : 1986 is a precast prestressed concrete street lighting pole, designed to support luminaires in urban and public spaces. These poles are constructed using prestressed concrete, which undergoes pre-compression to enhance its strength and ability to resist environmental forces, ensuring reliable performance for long periods. Intended exclusively for street lighting applications, the poles are engineered to meet specific structural requirements while providing stability and **resilience in outdoor environments**.

Consumers typically expect high-quality concrete poles to exhibit durability, **corrosion resistance**, dimensional accuracy, safety, and ease of installation and maintenance, withstand environmental stresses such as wind and weather without deterioration, have a smooth and uniform appearance for visual consistency, and be capable of supporting the weight of lighting fixtures safely. Additionally, accessibility for maintenance and efficient installation are valued features, as these contribute to the pole's long-term functionality and reliability.

The standard addresses these consumer expectations through guidelines covering materials, design, manufacturing processes, and testing protocols. By specifying the use of high-quality cement, aggregates, and reinforcement that meet Indian Standards, it ensures the durability and corrosion resistance of the poles. The standard also outlines detailed requirements for design elements like mounting height, load-bearing capacity, and bending resistance, ensuring that poles meet structural safety standards. It mandates strict manufacturing processes, including prestressing, **compacting and curing**, which promote a uniform finish and structural integrity. Furthermore, standardized testing protocols for transverse strength, dimensional accuracy, and sampling provide quality assurance, ensuring that each pole meets both **safety and aesthetic expectations**. Through these specifications, IS 2193 : 1986 upholds high-quality parameters, aligning the product with consumer needs for safety, reliability, and longevity in street lighting applications.