



IS 11646 (Part 2) : 1986 - Specification For Cane For Visually Handicapped: Part 2 Folding Type

A high-quality folding cane for visually handicapped individuals is defined by its durability, comfort, visibility, and ease of use. Designed to aid in mobility, the cane allows users to navigate safely by providing tactile and auditory feedback. The Indian Standard IS 11646 (Part 2): 1986 outlines the specific requirements for folding canes used as probing devices, ensuring they meet the essential needs of visually impaired individuals.

Key factors contributing to the cane's quality include the use of lightweight yet durable materials, a comfortable grip, an auditory feedback system through the tip, and high visibility for user safety. IS 11646 (Part 2): 1986 specifies requirements for the cane's components, materials, coating, and construction to meet consumer expectations effectively.

The standard includes the following key quality and performance requirements:

1. **Material Durability:** The cane's shaft is made from lightweight materials such as aluminum, ensuring ease of handling and long-lasting durability. The wall thickness and diameter are specified to provide structural strength (Section 3.1).
2. **Grip Comfort:** An ergonomic grip made from materials like rubber or nylon prevents heat and moisture absorption. Its tapered design ensures a comfortable, secure hold, enabling long-term usage without discomfort (Section 3.2).
3. **Auditory Feedback from Tip:** The cane's tip, crafted from durable materials like nylon, generates sound on contact with surfaces, helping users detect obstacles through auditory cues. This feature is essential for effective navigation (Section 3.3).
4. **Visibility:** A durable white coating, with an optional fluorescent layer, enhances the cane's visibility, making it easily identifiable in low-light conditions and promoting user safety (Section 3.4).
5. **Folding Mechanism Durability:** To ensure reliability, the cane must withstand an endurance test of 1,000 folding cycles without affecting its functionality. This guarantees the cane remains operational after repeated folding (Section 6.1).
6. **Clear Marking:** The cane is marked with the manufacturer's name, length, and trademark to aid in traceability and allow users to select the correct size. This labeling helps ensure quality and usability (Section 7).

This standard also provides methods for testing, inspection, and sampling to ensure consistent performance and durability under varying conditions. The marking clause prescribes requirements that facilitate proper identification and help users select a cane suitable for their specific needs.