

IS 17786 Medical Textiles Underpad Specification

The Indian Standard **IS 17786** outlines specifications for **medical underpads**, absorbent products designed to **protect bedding, mattresses, and medical surfaces** from soiling, moisture and stains due to body fluids.

These underpads, commonly used for patients with incontinence, limited mobility or in clinical settings like operation theaters, may be **single-use** or **reusable** depending on the user's needs. This standard ensures that underpads meet essential quality and safety criteria, particularly in terms of **absorbency, hygiene, and material durability**.

Consumers look for underpads that offer **high absorption capacity, leak-proof design, ease of use, odor control** and **skin comfort**. Key performance features include rapid absorption, substantial fluid retention, and a waterproof barrier to prevent leakage. For **comfort and safety**, consumers prefer products with a **non-irritating, pH-neutral surface**, free from harmful chemicals or irritants, as these underpads are often in prolonged contact with the skin. Durability is also essential for reusable pads, ensuring they withstand repeated washing without losing integrity.

IS 17786 addresses these consumer expectations by defining construction standards for each underpad component:

- **Top Layer (Top Sheet):** The top sheet, which contacts the skin, must be made from **hydrophilic, skin-safe materials** that permit fluid to pass through to the core while preventing skin irritation.
- **Absorbent Core:** The core comprises materials such as **cellulose pulp** or **superabsorbent material** to ensure efficient and high-volume fluid retention, minimizing the risk of bedsores or rashes.
- **Protective Barrier:** The backing layer must be **fluid-proof**, providing an impermeable barrier that prevents absorbed fluids from reaching the bed or furniture.

The standard mandates performance tests on **absorption capacity, absorption time, and fluid retention**, ensuring each underpad size (small to extra-large) meets the minimum fluid handling requirements.

For hygiene, IS 17786 requires **bioburden testing** for bacterial and fungal contamination, with stringent limits to ensure patient safety, including tests for **Staphylococcus aureus** absence.

The standard emphasizes the importance of **good manufacturing practices** that covers factory hygiene, contamination prevention, and proper packaging to maintain product integrity.

IS 17786 specify marking requirements by clear labeling, including care instructions for reusable pads and disposal guidance for single-use, declared life cycle/maximum wash cycle.

By following IS 17786, manufacturers can guarantee underpads that are technically robust, meeting high standards of **absorbency, safety, and hygiene** essential for reliable performance in both healthcare and home environments, ultimately enhancing the quality of life for individuals.