



Indian Standard IS 10889:2004 – Quality and Safety Standards for High Density Polyethylene (HDPE) Films

High Density Polyethylene (HDPE) films are widely used in industries like packaging, agriculture, and construction due to their durability, high tensile strength, and chemical resistance. To ensure quality and performance, **Indian Standard IS 10889:2004**, developed by the Bureau of Indian Standards (BIS), outlines stringent requirements for the production, composition, and testing of HDPE films.

IS 10889:2004 covers all essential properties to guarantee that HDPE films meet industry needs for strength, consistency, and resilience. It specifies that HDPE films must be made from high or medium molecular weight HDPE polymers, ensuring optimal density and melt flow rate for performance in diverse conditions. The films must have a uniform texture, color, and appearance, free from visible defects like pinholes, streaks, or foreign particles. Additionally, HDPE films should be odorless, enhancing their suitability for consumer-facing applications.

The standard mandates thorough testing for **mechanical properties such as tensile strength, elongation at break, and impact resistance** to confirm that the films can withstand significant stress without tearing or fracturing. IS 10889:2004 also specifies minimum and maximum allowable thicknesses, ensuring dimensional consistency critical for various applications.

To ensure product safety, HDPE films used in packaging, including food-contact applications, must adhere to additional requirements for **chemical composition**. The films should be free from contaminants and meet BIS guidelines for permitted substances, making them suitable for safe packaging.

Packaging and labeling specifications further enhance product integrity. Rolls of HDPE films must be securely packed to prevent contamination and must display key information such as **manufacturer details, grade, thickness, and batch number**, allowing for traceability and easy identification by consumers and regulators. For quality assurance, films may bear the BIS Standard Mark, certifying their compliance with IS 10889:2004.

In summary, **IS 10889:2004** ensure that HDPE films are durable, reliable, and safe for a variety of uses. Whether in packaging, agriculture, or construction, products conforming to this standard offer quality and consistency, meeting the performance expectations for industrial and consumer applications alike.