

IS 2508: 2024 Polyethylene Films and Sheets — Specification (Fourth Revision)

Polyethylene films and sheets are used extensively in applications like water management, agriculture, construction, and waste management. These sheets are designed to act as barriers against liquid or gas migration, offering versatility for waterproofing, lining, and protection. Polyethylene films are valued for their flexibility, chemical resistance, non-toxicity, and UV stability, making them suitable for diverse industrial and environmental purposes.

Consumers expect high-quality polyethylene films that are durable, dimensionally accurate, and free from defects like pinholes or tears. Essential qualities include consistent thickness, high tensile and tear strength, puncture resistance, and the ability to withstand environmental stress without degrading. Uniform color and texture, as well as non-reactivity with substances, are also important for reliable performance in outdoor or demanding conditions.

IS 2508 addresses these consumer expectations by setting comprehensive requirements and testing methods. The standard defines the physical properties for different types of polyethylene films, including specifications for density, tensile strength, and elongation. It prescribes rigorous tests for tear and puncture resistance, ensuring the sheets can endure mechanical stress. The inclusion of carbon black content helps enhance UV resistance, critical for films exposed to sunlight. The standard also specifies quality control through detailed sampling and testing procedures, ensuring batches meet required characteristics. Compliance with IS 2508, confirms that polyethylene films adhere to stringent safety and performance norms.