SANDHYAFLEX

ISO 9001:2015 certified company

LDPE Sheet as per IS: 2508-1984

TECHNICAL DATASHEET

SANDHYAFLEX INDIA PVT LTD Dealing and Supply LDPE SHEET as per IS:2508-1984 Specification Density Polyethylene sheet has many names. It goes by the names poly sheeting, plastic sheeting, plastic film, polyethylene sheet, and poly film to name a few. Polyethylene sheeting is a plastic film made from petroleum.

That is why the price of the product can vary depending on what oil prices are doing. It is sold in rolls where in additives can be added to change the functionality of the film. Additive such as U.V. inhibitors, fire retardants, anti-static additives are added so each variation can best serve it's intended use. LDPE Plastic Sheet, LDPE Sheets Mono Industries were established in the year 2016 at Hyderaad, India.

We are an ISO 9001:2015 Certified Company and a reckoned name in the field of supplying a vast collection of LDPE Sheet. We are specialized in offering an expansive range of LDPE Plastic Sheet to high standards. Our specialization is in Supply HDPE Sheet of 30 micron to 1000 microns and width of 1 meter to 6 meter. Our production procedures conform to IS-2508-1984.

History of LDPE Sheet:

• **1933 – Discovery of LDPE:** Low-Density Polyethylene (LDPE) was first developed by scientists at ICI (Imperial Chemical Industries), UK, through a high-pressure polymerization process.

• **1940s – Commercial Production:** Large-scale production of LDPE began during World War II, primarily for electrical cable insulation due to its excellent dielectric properties.

• **1950s – Packaging Industry Growth:** LDPE sheets and films gained popularity in packaging applications because of their flexibility, moisture resistance, and lightweight nature.

• **1960s–1970s – Expansion into Agriculture:** The use of LDPE sheets expanded into agriculture for greenhouse covers, mulching, pond lining, and crop protection applications.

• **1980s – Construction and Waterproofing Applications:** Growing demand in construction led to the use of LDPE sheets as vapor barriers, waterproofing membranes, and protective liners.

• **1990s – Improved Manufacturing Technology:** Advancements in extrusion technology enhanced sheet quality, thickness uniformity, durability, and production efficiency.

• **2000s – Heavy-Duty and Specialized Grades:** Development of UV-stabilized, chemical-resistant, and heavy-duty LDPE sheets enabled use in landfills, reservoirs, industrial flooring, and containment systems.

• **Modern Era:** LDPE sheets are widely used in agriculture, construction, waterproofing, canal lining, pond lining, waste management, packaging, and industrial protection applications worldwide due to their durability, flexibility, and cost-effectiveness.

Materials :

The **LDPE Sheet** shall be manufactured from high-quality **Low-Density Polyethylene (LDPE) resin** with suitable additives to enhance performance characteristics such as flexibility, durability, weather resistance, and processability. The compound may contain UV stabilizers, antioxidants, pigments, carbon black (for black grades), and other approved additives such that, when processed, the sheet meets the required standards for tensile strength, elongation, moisture resistance, chemical resistance, and long-term service performance in agricultural, construction, waterproofing, and industrial applications.

For builders, contractors, and industrial users seeking reliable waterproofing and lining solutions, SANDHYAFLEX LDPE Sheets are the ideal choice. Offering excellent moisture resistance, flexibility, durability, and long service life, they are widely used in construction, agriculture, canal lining, pond lining, and industrial protection applications.

Packing standard of LDPE SHEET

S.No	Size in Microns	Packing
1	75	In Roll
2	100	In Roll
3	125	In Roll
4	150	In Roll
5	200	In Roll
6	250	In Roll
7	300	In Roll
8	400	In Roll
9	500	In Roll
10	750	In Roll
11	1000	In Roll
12	1200	In Roll
13	1500	In Roll

Application:

- Agriculture (Mulching Film, Pond Lining Film)
- Automotive Industry (VCI Films)
- Construction Films (Protection Films, Lieving Films, Seepage Constructions)
- Electronic Industry (Anti Static Films)
- Industries (Shrink Films, Cling Films, Stretch Films)

Advantageous Properties: SANDHYAFLEX LDPE Sheets boast:

• Excellent moisture and water resistance for effective protection against seepage and dampness.
• High flexibility and elongation, allowing easy installation and adaptation to uneven surfaces.
• Superior chemical and corrosion resistance for long-lasting performance in harsh environments.
• Good tear strength and durability, ensuring reliable protection during handling and service.

• Lightweight construction for easy transportation, storage, and installation.
• Excellent weather and UV resistance, making them suitable for both indoor and outdoor applications.
• Non-toxic and environmentally safe material, suitable for construction, agriculture, and industrial uses.
• Low permeability characteristics, providing an effective barrier against water, vapour, and contaminants.

TECHNICAL SPECIFICATIONS (IS 2508:1984)

Property	Requirement
Material	LDPE
Thickness Range	50–500 Microns (Typical)
Tensile Strength (MD)	≥120 kgf/cm²
Tensile Strength (TD)	≥85 kgf/cm²
Elongation (MD)	≥100–200%
Elongation (TD)	≥350–400%
MFI (Heavy Duty Grade)	≤0.30 g/10 min
Water Resistance	Excellent
Chemical Resistance	Excellent

PHYSICAL AND CHEMICAL PROPERTIES

LDPE Sheet Technical Requirements (As per IS 2508:1984)

Property	Requirement
Material	Low Density Polyethylene (LDPE) Film/Sheet
Thickness Tolerance	Up to 40 µm: ±25%; Above 40 µm: ±20%
Width Tolerance	Up to 500 mm: ±5 mm; >500–1250 mm: ±8 mm; >1250–2500 mm: ±20 mm; >2500–3000 mm: ±40 mm
Yield Tolerance	One Roll: ±10%; Up to 250 kg: ±10%; >250–1250 kg: ±5%; Above 1250 kg: ±3%
Tensile Strength at Break (MD)	≥120 kgf/cm² (11.77 MPa)
Tensile Strength at Break (TD)	≥85 kgf/cm² (8.33 MPa)
Elongation at Break (12.5–75 µm)	MD ≥100%; TD ≥350%
Elongation at Break (≥75 µm)	MD ≥200%; TD ≥400%
Optical Properties – Low Clarity Film	Gloss <30; Haze >15%
Optical Properties – Normal Clarity Film	Gloss 30–55; Haze 10–15%
Optical Properties – High Clarity Film	Gloss >55; Haze 6–10%
Slip Classification – Low Slip	Coefficient of Friction >0.40
Slip Classification – Medium Slip	Coefficient of Friction >0.30 to ≤0.40
Slip Classification – High Slip	Coefficient of Friction >0.20 to ≤0.30
Slip Classification – Extra High Slip	Coefficient of Friction ≤0.20
Heavy Duty Film MFI	≤0.30 g/10 min
Heavy Duty Film Tensile Strength (MD)	≥140 kgf/cm²

Heavy Duty Film Tensile Strength (TD)	≥110 kgf/cm²
Heavy Duty Film Impact Strength	Shall conform to High Impact Resistant Film requirements
Films Below 175 mm Width	Tensile Strength (MD) ≥120 kgf/cm²

Reference Standard: IS 2508:1984 – Low Density Polyethylene Films (including amendments).

APPLICATIONS BY COUNTRIES:

India:

- Widely used in canal lining, pond lining, and water conservation projects.
- Common in agriculture for mulching, greenhouse covers, and nursery applications.
- Used in construction as vapor barriers and waterproofing membranes.
- Increasing demand in landfill lining and infrastructure development projects.

China:

- Extensive use in agriculture, greenhouse farming, and irrigation systems.
- Widely applied in industrial waterproofing and containment projects.
- Strong demand from large-scale infrastructure and urban development sectors.
- Used in reservoir lining, aquaculture ponds, and environmental protection projects.

United States:

- Commonly used in construction waterproofing and vapor barrier systems.
- Widely adopted in landfill lining and environmental containment applications.
- Used in agriculture for mulching, greenhouse cultivation, and water storage.
- Growing demand in industrial flooring and protective lining systems.

Europe:

- Used in sustainable construction and waterproofing applications.
- High demand in landfill, waste management, and environmental protection projects.
- Common in greenhouse farming and modern agricultural practices.
- Increasing use in renewable energy and water conservation projects.

Africa:

- Widely used in pond lining, irrigation, and water storage projects.
- Essential for agricultural development and greenhouse farming.
- Common in mining containment and environmental protection applications.
- Increasing adoption in infrastructure and rural water management programs.

Middle East:

- Strong demand for water conservation, reservoir lining, and canal lining projects.
- Widely used in desert agriculture and greenhouse cultivation.
- Applied in waterproofing systems for large-scale construction projects.
- Used in waste containment and industrial protection applications.

Australia:

- Extensive use in agriculture, irrigation, and water storage systems.
- Common in mining containment and environmental protection projects.
- Used in pond lining, reservoir lining, and landfill applications.
- Growing demand in construction waterproofing and infrastructure projects.

South America:

- High demand in agriculture, greenhouse farming, and irrigation projects.
- Used in aquaculture ponds and water conservation systems.
- Common in landfill lining and environmental containment applications.

  Increasing use in infrastructure development and industrial waterproofing

Get in touch:

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