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SPREAD OVER

FOUR DECADES



www.monoplastics.com
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BIS & ISO 9001:2015 Certified Company

A BRIEF OVERVIEW OF OUR COMPANY, **MONO INDUSTRIES**



Arun Rastogi
Managing Director

Established in the year **1980**, at New Delhi, India, we, “**Mono Industries,**” an **ISO 9001:2015 Certified Company** are the prominent name in manufacturing and supplying a comprehensive collection of LDPE & HDPE sheets, polythene films, bags & rolls. We are Offering a wide range of LDPE Sheets, LDPE Plastic Sheet, HDPE Sheets, HDPE Solid Sheets, Geomembrane Films, Agricultural Films, LDPE Plastic Bags, Protection Film etc.

Our offered assortment of products is extensively cherished among our prominent customers for its attributes such as high strength, durability, reliability and perfect finish. Due to which, they have achieved a wide recognition in the domain. Due to their extensive application in numerous packaging needs in different industries, these are in continuous demand.

We are also specializing in lining for water proofing, reservoirs, Ponds, canals etc. and these sheets are manufactured up to 1.5 MM thickness with a width up to 6 meters. We have a large set up and a product capacity of over 500 metric tons a month. We have our manufacturing units in Delhi, Uttar Pradesh and Haryana.

We are proposed to inspire and to exceed the expectations of our clients and ourselves. By preferring to our company, our clientele find delightful experience. We pride fully partner with our clients to offer a cost-effective and better range finding application in tunnels, greenhouses, and agriculture.

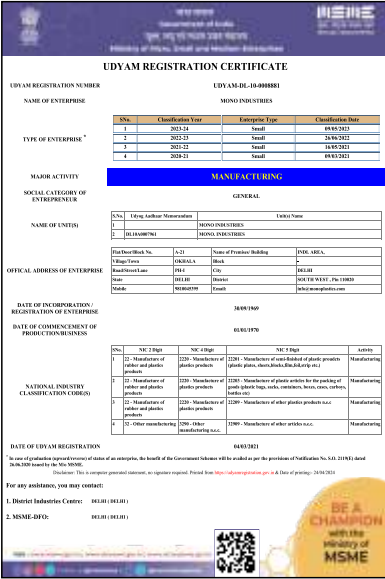
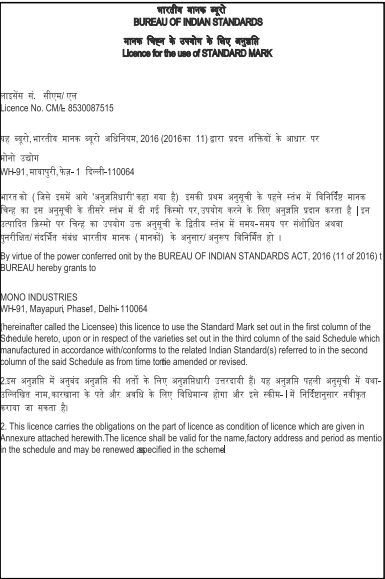
We have been awarded BIS Certification to supply poly films as per IS guidelines / marks. These certified films are manufactured under strict quality control systems.

We have highly skilled and competent staff and have in many ways contributed to set the new advanced standards. We have also helped many large organizations to cut their costs through our expertise.

We take pride in the fact that our credentials include supplies to many of the Government and Private Sector Undertakings which has been highly acclaimed for quality and timely delivery.

We are backed with a sophisticated infrastructural ability that is divided into various operational departments helping us in running our complete business operations in a efficient way. We make necessary changes in our manufacturing unit in order to carry out a smooth manufacture process. Our experts are well capable and knowledgeable in their own domains aid us in undertaking the exact needs of customers with ease and accuracy. Moreover, our specialists work in a close direction with one another in order to carry out their given responsibilities within a time bound and planned manner.

OUR CERTIFICATIONS



OUR PRODUCT RANGE

POND LINING

- Lining of ponds and reservoirs improves water availability over a longer period of time.
- It is highly useful in porous soils where water retention in pond and water harvesting tanks is minimal.
- This technique can also be used in the lining of salt pans for improving productivity as well as quality of salt.
- Technique is suitable for effluent ponds and channels to reduce soil and ground water contamination.
- Economical and effective method of storing water.
- Prevents loss of water through seepage.
- Eliminates water logging and prevents upwards intrusion of salts into stored water.
- Useful for the purpose of storage of drinking water, for pisciculture and for providing supplementary irrigation. A large number of ponds have been lined with plastics for providing drinking water in the coastal and hilly areas of Gujarat, West Bengal, Karnataka and Himachal Pradesh.
- Lining of effluent ponds for pollution control.
- Shortens gestation period of crop growth.
- Prevents soil erosion.

FEATURES:

- Smooth texture
- Perfect finish
- High strength
- Sturdiness



OUR PRODUCT RANGE

GEO MEMBRANES

HDPE Sheet is high-density polyethylene geomembrane sheet manufactured by Blow Film process, using resins produced under the most rigorous quality controls. International standards, and guarantee of properties. HDPE Sheet is a high-molecular-weight Geomembrane, derived from virgin resins and stabilized with the most modern additives available on market, giving Geomembrane an excellent mechanical resistance and very good chemical compatibility. Blow Film process used by us gives Geomembrane a balanced molecular orientation. Its special formulation ensure a better flexibility and a perfect solder ability.

HDPE geomembrane lining for water tank is used to form a protective barrier, has good heat resistance and cold resistance, good chemical stability, high rigidity and toughness, good mechanical strength, environmental stress crack resistance and tear resistance strength performance, as the density increases, the mechanical properties and barrier properties will increase accordingly, heat resistance and tensile strength. Also higher resistance to corrosive liquids such as acids, alkalis and organic solvents, etc.

- Well designed
- Excellent chemical resistance
- Fish/prawn/shrimp safe
- Enhanced strength
- Durable quality
- Provides best water containment solutions



OUR PRODUCT RANGE

WATER PROOFING MEMBRANES

A waterproofing membrane is a thin layer of water-tight material that is laid over a surface. This layer is continuous and does not allow water to pass through it. For example, on a flat terrace, a waterproofing membrane could be laid above the structural slab and below the finish tiles. This will ensure that water does not seep into the structural slab. The tiles and membrane must be laid over a filler material that is sloped to ensure that water flows into sumps and drains. Any water that remains as puddles over the tiles is likely to seep into the slab over time, so puddles are to be avoided at all costs.

We at Mono Industries, manufacture these membranes which are strong, flexible, tear-resistant and elastic so that it can stretch to cover cracks and also move with the building. Since these membranes are to be exposed to the sun, we manufacture them as UV stabilised which can withstand the heat and water for long time. These membrane are flexible enough to take any shape it is laid over, and are capable of turning up and over walls and other construction features.



OUR PRODUCT RANGE

POLY SHEET USED IN BUILDING CONSTRUCTION

Our offered poly sheet is manufactured in various colors and in different sizes and thickness. These sheets are the protective coverings on under construction buildings so as to avoid any dust spreading to the nearby areas.



POLY SHEET FOR ROAD CONSTRUCTION

The offered poly sheet for road construction is specially designed for laying beneath the tar and other road construction material and acts as a seepage barrier. Our supplied poly sheet for road construction is used to prevent the water damages and is easy to spread on the length and breadth of the required sizes of road construction.

FEATURES:

- Stops damages from rain water
- Optimal dimensions
- High tearing strength



OUR PRODUCT RANGE

AQUACULTURE

More than half the fish consumed globally comes from Aquaculture. This warrants large scale intensification of output by expanding farming and intensifying production method.

HDPE/LDPE lined ponds are an essential part of Aquaculture, it helps in maintaining the temperature thus increasing proper fish breeding and output. The water quality, chemical and disease control is possible in LDPE/HDPE lined ponds, to add to it also reduces water requirement.

LDPE/HDPE Plastic sheet is suitable for lining shrimp ponds/fisheries as both sheets incorporate anti-ultraviolet substances, can resist deterioration by UV light resulting in long lasting period. These sheets are flexible and come in bundles/rolls that can be easily fused or glued together during installation.

Features of LDPE/HDPE sheets for Aquaculture:

- Cost effective/reduction
- Improvement in quantity of farming products
- UV stabilized
- Easy installation



OUR PRODUCT RANGE

ALGAE FARMING PONDS

An HDPE / LDPE pond liner offers the most effective harvesting techniques for Algae Ponds. Whether you plan to skim the algae out of the water, treat it with a flocculants to cause it to settle on the bottom, or have some other method, a clear barrier at the bottom of the pond allows for a full harvest.

There is no need to lose 10-30% of the total algae as it mixes with mud or muck from the bottom of the pond. Even seaweed is easier to harvest in a lined pond and tend to grow back faster.

When it comes time to clean out any dead algae or accumulated debris at the end of a growing cycle, lined ponds are far easier to vacuum or sweep than unlined ones.

HDPE/LDPE pond liners are tough enough to withstand poking with a net or vacuum tool without ripping or tearing but they can't be cleaned of unwanted algae growth as easily as geo membranes.



OUR PRODUCT RANGE

RAIN WATER HARVESTING

It is a technique or strategy for the collection of rainwater and storing it in the right way for future use. The water can be collected from various surfaces and platforms and stored for later use. In most cases, the water is usually collected from rooftops and other hard surfaces. Rainwater harvesting is considered a very reliable way to conserve water.

Types of liners for Rainwater Collection and storage systems

High density polyethylene (HDPE) is flexible liner that works well for certain types of ponds. HDPE is commonly used as a pond liner which is UV resistant and acts as a protective layer.

Low density polyethylene (LDPE) is another liner option which plays as an impervious layer for farming, lining of ponds and reservoirs preventing the losses of “run of water”. These LDPE plastic sheets save gallons of potable and irrigation water, helping farmers to produce more with same quantity of water and giving a helping hand to save environment by saving water.

BENEFITS OF RAINWATER HARVESTING

- Cost effective
- Improves the quality and quantity of ground water
- Source of water for landscape irrigation
- Easy to operate



OUR PRODUCT RANGE

CANAL LINING

- Increase in the hydraulic efficiency of the canal system.
- Prevent seepage losses
- Prevent Breaches in the embankment
- Eliminate water logging and soil salinity of cultivable through which canal/distribution passes.
- Reduction of weed growth in the canals.

FEATURES:

- Reliable
- Affordable
- Reusable
- Flexible
- Light weight
- Dust free protection



OUR PRODUCT RANGE

HDPE/LDPE SHEETS USED IN AIRPORTS UNDER THE RUNWAYS

HDPE/LDPE sheets are a must in building a strong, smooth long-lasting Runways. It is mandatory that a layer of HDPE/LDPE sheet is used under the runways thus preventing seepage and giving the runway a longer life.

The application of such sheets also gives a strong foot hold to the layers of soil underneath the various upper layers thus avoiding shifting of soil due to heavy pressure from above.



HDPE/LDPE SHEETS USED IN SALT PANS

The most common method of obtain sea salt is to channelize water into shallow beds and evaporate the water. HDPE liner beds result in faster evaporation, easy extraction of salt and long life of the beds.

ADVANTAGES OF HDPE GEOMEMBRANES FOR LANDFILL:

- | | | |
|---|----------------------------|----------------------|
| ■ Good flexibility, filtration and separation | ■ Environmental protection | ■ Longevity life |
| ■ UV stabilized | ■ Easy to install | ■ High tear strength |
| | | ■ Leak Proof |



OUR PRODUCT RANGE

HDPE GEOMEMBRANE FOR LANDFILL

Landfilling is one of the most widely employed methods for the disposal of municipal solid waste.

A very basic landfill can be designed or a high-tech bioreactor landfill implemented. However, it must always be lined with HDPE/LDPE sheets properly at the bottom to prevent groundwater pollution and a cover is needed to protect from insect breeding or wind erosion.

HDPE/LDPE geomembrane material is used to stabilize earth and to secure landfills from containment of hazardous or municipal wastes and their heap leach pads, so they do not contaminate the ground/ground water.

ADVANTAGES OF HDPE GEOMEMBRANES FOR LANDFILL:

- High strength and good barrier properties
- Excellent permeability even under soil pressure
- Good flexibility, filtration and separation
- Environmental protection
- Longevity life
- UV stabilized
- Easy to install
- High tear strength
- Leak Proof



OUR PRODUCT RANGE

GREENHOUSE COVERINGS

Greenhouse covers are a key component in greenhouse construction. The ideal greenhouse covers are manufactured using a UV stabilizing additive to protect them from UV degradation and help them retain their original properties. The type of plant grown will determine the amount of light transmission needed and the type of material to be used.

Polyethylene film is a popular material to use for covering greenhouses. It has a low initial cost and requires limited structural materials and effectively diffuses sunlight. It is recommended to install a double layer of plastic film with airspace in between. This can reduce heating costs upto 40% as compared to other greenhouse cover materials.

BENEFITS OF HDPE/LDPE COVERINGS OF GREENHOUSE

- Cost effective/reduction
- Improvement in quantity of farming products
- UV stabilized
- Easy installation



HDPE SHEETS USED IN TANKS OIL DEPOT

Oil depots are a high fire risk and in order to prevent fire from spreading from one tank to another, a layer of plastic film is used around the tank with brick and sand on the top layers.

These plastic sheets prevent fire from spreading as also acts as a barrier to the spilled oil which can contaminate the ground water and soil.

- Good flexibility, filtration and separation
- UV stabilized
- Easy to install
- Environmental protection
- High tear strength
- Longevity life
- Leak Proof



PROCESS OF JOINING / INSTALLATION / SEALING OF POLY SHEETS AND TYPE OF EQUIPMENTS / MACHINERY USED

Polythene or polyethylene sheet is commonly used as a damp-proof membrane with over site concrete for all but severe conditions of dampness

Where site conditions are reasonably dry and clean, the overlap joints between the sheets are sealed with mastic or mastic tape between the overlapping sheets and the joint completed with a polythene jointing tape.

For this lapped joint to be successful the sheets must be dry and clean else the jointing tape will not adhere to the surface of the sheets. As clean and dry conditions on a building site are rare, this type of joint should be only used where there is unlikely to be heavy absorption of ground moisture. Where site conditions are too wet to use mastic and tape, the joint is made by welting the overlapping sheets with a double welted fold, and this fold is kept in place by weighing it down with bricks or securing it with tape. The double welt is formed by folding the edges of sheets together and then making a welt which is flattened.

The plastic sheet is effectively impossible to fold and so stiff and elastic that it will always tend to unfold so that it requires a deal of patience to fold, hold in place and then contrive to fold along the joint. By using the maximum size of sheet available it is possible to minimize the number of joints.

At the internal angle of walls a cut is made in the up stand sheet to facilitate making an overlap of sheet at corners. These sheets which are commonly used as a damp-proof membrane will serve as an effective barrier to rising damp, providing they are not punctured or displaced during subsequent building operations.

We use Automatic Sealing / Combi-wedge welding machine with step less adjustable temperature and drive manufactured by M/s Leister Technologies, Switzerland as also hand sealing machines for welding joints and cross overlaps.

The above state of art hot air blow sealing machine which we would be using, weighs approx. 6.5 kgs and operates on a voltage of 220-230 volts.

The temperature of the machine is digitally controlled with a max. heating up to 600 °C.

The salient features of the machine are as under:

- Low weight
- High welding speed
- Step less adjustable temperature and drive
- Even under harsh environmental conditions perfect welding results

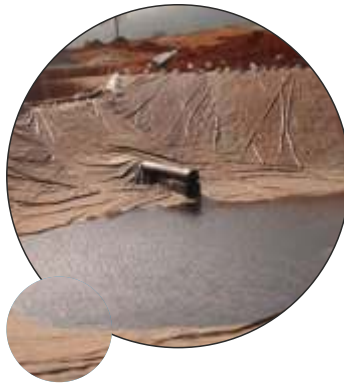


METHODOLOGY FOR SEEPAGE BARRIER LINING FOR INDUSTRIAL FLOORING



Scope

This specification covers supply, laying, welding, repairing and protection of under slab seepage barrier lining for preventing the penetration through the slab of damaging alkaline salts, moisture, mold, radon gas and water seepage



Surface Preparation

- The PCC should be well compacted and free from protruding particles, weeds and pot holes
- Stagnated water if any should be removed and the surface should be moderately dry



Material

- Seepage Barrier shall be of 300 micron thick 100% virgin quality HDPE seepage barrier
- Seepage liner should be smooth, uniform in colour, texture & finish, free from pin holes, un dispersed raw material, streaks & particles of foreign matter, no other visible defects such as melt fracture, holes, tears or blisters
- Material density shall be 0.94 and carbon black content shall be 2 – 3 %
- Elongation at Break shall be 600%. Puncture Resistance shall be 105 N and Tear Resistance shall be 40 N
- Length of the liner should be 50.0 mt and width should be 6.0 mt.



Delivery, Storage and Handling

- Deliver the Seepage barrier sheet at site in original, unopened packaging, with

labels clearly identifying product name, grade and thickness

- Store the material in a clean dry area in accordance with manufacturer's instructions
- Stack the material on smooth ground or wooden platform to eliminate warping
- Protect the material during handling and application to prevent damage or contamination.

METHODOLOGY FOR SEEPAGE BARRIER LINING FOR INDUSTRIAL FLOORING



Installation

- Unroll the Seepage barrier sheet above well prepared surface with the longest dimension parallel with the direction of the po
- Mark 100 mm overlaps over the edges of liner (length and widthwise) by drawing a white line using a marker pencil
- Adjacent layers shall be laid within 100 mm overlap
- The overlaps shall be cleaned to ensure free from dirt and moisture
- Overlaps are welded with Leister automatic/ hand held hot air fusion welding machine with correct temperature, pressure and speed
- Test weld to be done every day before starting the work (machine temperature settings will vary according to the ambient temperature)



Terminations

- Lap the seepage barrier over footings and seal with BOPP tape
- No penetration of the seepage barrier is allowed except for reinforcing steel and permanent utilities
- If any penetrations are required like pipes or pedestals, these areas should be properly sealed with suitable product & method



Repairs

- Damaged areas are identified by visual inspection and marked with white marker pencil
- Repair damaged areas by cutting patches of seepage barrier for the required size (with round corner), placed over the damaged portion, cleaning the dirt particles and welded with Leister Triac S hand held hot air fusion welding machine and firmly rolled with silicone roller



Precautions

- Utmost care to be taken while placing the reinforcement rod over the seepage barrier lining
- In case any damages are occurred, it should be brought to the notice of seepage barrier installation team for repairing
- Concrete should be poured and compacted without damaging the seepage barrier lining

OUR NICHE CLIENTELE INCLUDES THE FOLLOWING ESTEEMED ORGANISATIONS AND SECTORS:







BIS & ISO 9001:2015 Certified Company

MONO INDUSTRIES

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