

# ShaliEPDM

Ethylene Propylene Diene Rubber Membrane For Pond / Canal Lining



STP Limited

## Description

**ShaliEPDM** pond liner and geomembrane are a premium quality EPDM synthetic rubber membrane. It is available in roll form with following dimensions. Our heavy-duty pond liner and geomembrane are durable and dependable for almost all applications, including commercial water features or application such as water storage pits, golf courses, etc. It conforms to ASTM D 7465.

## Technical Characteristics @ 27°C, 55% RH

Parameter	Result	Test Method
Colour	Black	--
Thickness, mm	1.5 - 1.55	ASTM D 412
Tensile Strength, MPa	9.5 - 10.5	ASTM D 412
Elongation, % Ultimate	340 - 380	ASTM D 412
Puncture Resistance, N	180 - 220	ASTM D 4833
Brittleness point, Max, °C	-45	ASTM D 2137
Tear Resistance, kN / m	40 - 42	ASTM D 624
Temperature Resistance, °C	- 40 to +110	-
Tensile Set, %	2 - 6	ASTM D 412
Heat Aging Resistance (670 hours @ 116°C)		
Tensile strength, MPa	9 - 11	ASTM D 412
Ultimate Elongation, %	280 - 350	ASTM D 412
Tear Resistance, kN / m	37.6 - 40.2	ASTM D 624
Linear Dimensional Change, %	- 0.4	ASTM D 1204
Water Absorption % at 70°C, 166 hours	+1.2 - 1.6	ASTM D 471
Resistance to Ozone	Pass	ASTM D 1149

\*The above values are taken from specimens made under reproducible conditions. However, they may differ somewhat on actual production/supply due to vulcanization conditions at the factory.

## Pond Liner Calculation

To calculate the necessary measurements of the pond liner the rules of thumb mentioned below can be applied.

Length = pond length + 2 x pond depth + 2 x 0.3 meter\*\*  
Width = pond width + 2 x pond depth + 2 x 0.3 meter

\*\* Adding 0.3 meter (1 foot) to the total sheet size to allow for over lapping the edge.

## Field of Application

- Waterproofing of Terrace or Podium
- Waterproofing of Underground structures and Basement
- Pond and Lake Lining at golf course, Water preservation ponds, etc.

## Advantages

- Easy to install
- High durability
- Can be used over a wide temperature range at cold and hot zone.
- Not harmful to aquatic life. However, it is recommended to have a prior check test as per local rules and customer requirements & its end use.
- Elongation of more than 300% helps to take care of movements of the earth. This also helps to create pond of any shape making it aesthetically more appealing.

## Application Methodology

### ➤ Surface Preparation

- Substrates must be clean, dry, smooth and free of sharp edges, fines, loose or foreign materials, oil, grease, and other materials that may damage the geomembrane.
- All roughened surfaces that can damage the geomembrane shall be repaired as specified to offer a smooth substrate.
- If required, consider laying 250 - 300 GSM **ShaliGeoText** on the soil before laying **ShaliEPDM** liner.
- All substrate voids greater than 6.3 mm (0.25") wide shall be properly filled with an acceptable fill material.

### ➤ Installation of Material

- Compact the soil to the tune of 85% - 95% (Standard Proctor). Make sure all debris that could damage the EPDM liner is removed.
- Put the liner in the deepest part of the pond, unroll it and work up along the walls. Try and apply the liner as smoothly and pleat less as possible to the bottom and along the walls, following plateaus made, if any, as smoothly as possible and to best of your ability. However, do not apply the pond liner too tight, because later on it will be pushed outwards by the water.
- Lay the **ShaliEPDM** pond liner. The overlaps of the **ShaliEPDM** pond liner are done with either the seam tapes or the bonding adhesive (**ShaliBond EPDM**).
- Take care that during applying the liner you step as little as possible on the excavated plant plateaus, thus avoiding to damage them.
- The overlap of the pond liner which is situated over the pond side should be weighted but may not yet be cut off.
- Overlap of the pond side of 12 inches on both sides has to be considered.
- You can do that a few weeks after the pond would have been filled with water.

### ➤ Pond Testing

- Water Ponding test can be conducted by sealing all drain outlet and ponding water to an average height of 50 to 75 mm for 72 hours and thereafter the same is released and checked for the roof / ceiling for leakage / seepage, if any.
- Water Ponding test is necessary to carry out before putting any protection over membrane to facilitate better accessibility, in case of any correction is desired.

## Precautions

- Take care when moving, transporting, handling, etc. to avoid sources of punctures and physical damage.
- Isolate waste products, such as petroleum products, greases, oils (mineral and vegetable) and animal fats from the liner

## Packing

Available in roll form of 30 m length and various width of 1.2 m, 3 m and 6 m width and in thicknesses of 1.2 mm, 1.5 mm and 2 mm.

## Health & Safety

- Totally non-hazardous.
- However, it is preferred to use hand gloves and safety goggles while handling.
- Wash hands with water after handling.

## Storage

- Store away from sources of punctures and physical damage.
- Store away from ignition sources as the liner will burn when exposed to open flame.
- Keep the rolls vertically.

## Shelf Life

There is no deterioration to material even after a prolonged storage, however, it is better to use within two years of manufacturing.



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