SealEco

# Elastoseal EPDM

## Manure Storage Lagoons

ElastoSeal

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**Prefabricated EPDM liners for "do-it-yourselve" Manure Storage Lagoons**

Elastoseal EPDM, thickness 1,00 / 1,20 / 1,50 mm,  available in a range of  prefabricated sizes for installation in 2,0 meter deep, excavated pit with slopes of 2:1.

Panels are supplied in any size, limits are set by handling on site, unrolling and unfolding, manpower and equipment available. Panel sizes up to 2000 sqm have been used. Larger pits can easily be installed by help of our authorized geomembrane installers.

SealEco or our local partner provide service in calculation of volumes and panel sizes.

**Table over recommended sizes for small volume pits**

| Lagoon volume | Bottom surface, m | | Panel size, m | | Panel size | Depth | Slope |
|---|---|---|---|---|---|---|---|
| $m^3$ | width | length | width | length | $m^2$ | m | H:V |
| 100 | 3,1 | 3,1 | 15,0 | 15,0 | 225 | 2,0 | 2:1 |
| 150 | 3,1 | 6,6 | 15,0 | 18,5 | 278 | 2,0 | 2:1 |
| 200 | 6,4 | 4,6 | 18,3 | 16,6 | 304 | 2,0 | 2:1 |
| 250 | 6,4 | 8,1 | 18,3 | 20,0 | 366 | 2,0 | 2:1 |
| 300 | 6,4 | 10,5 | 18,3 | 22,4 | 410 | 2,0 | 2:1 |
| 400 | 8,1 | 11,9 | 20,0 | 23,4 | 468 | 2,0 | 2:1 |
| 500 | 8,1 | 15,8 | 20,0 | 27,8 | 556 | 2,0 | 2:1 |

**Design**

- Use the excavated soil to build up raised embankments of the lagoon.
- Ensure a smooth soil surface without roots, debris or stones larger than 20 mm.
- A 5 cm layer of sand or a geotextile min 300 g/sqm is recommended between soil and membrane.
- The bottom surface shall have positive slope of 2 – 3 ° from the middle and outwards to avoid trapping of gas or ground water under the membrane.
- Drainage piping for gas generation and groundwater must be considered.
- Design in advance for any pipe penetrations, prefabricated pipe boots are available in common sizes. Also ramps in concrete, for access or protection from equipment, can be designed.
- The anchor trench should be 500 x 500 mm and with a horizontal crest platform of minimum 500 mm.



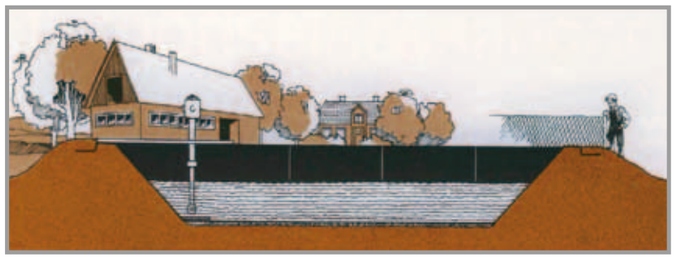
# Installation

Excavate to a depth of 2,0 m, plus 4 cm for a sand layer. Note that the bottom and embankment should be exactly horizontal and that the bottom surface should have a positive slope of 2-3°.

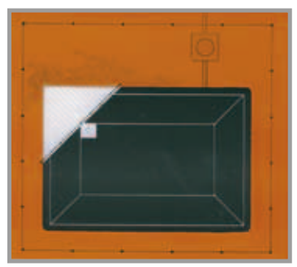
Remove debris and stones, the soil surface shall be as smooth as possible. Spread sand or lay out geotextile on the surface.

The panel is delivered rolled on a papercore. Place the panel at the middle of a shorter side and roll / fold out the panel.

2-3 people are required to unfold the panel. The panel can be moved and centered by waving the edges, by pumping air under the panel.



Use impregnated wood for the bridge construction. Use a pre-cast concrete slab as mechanical protection under pumps, equipment. Make sure that the slab have rounded edges, place an extra EPDM sheet under the concrete slab.



The lagoon is fenced, height of fence min. 120 cm.

*Our operations are conducted according to ISO 9001 and ISO 14000. Products and systems are tested according to applicable standards, supervised by independent laboratories, authorities and certified to local building codes in all the markets where we are active.*

# The Watertight Difference

**Unique rubber membranes**

Rubber is elastic, not plastic. Vulcanisation creates a stable cross-linked polymer structure with unsurpassed dimensional stability, elasticity and long term durability. Our systems involve patented, very competitive elastomeric materials and splicing techniques.

**Fully engineered systems**

30 years of close co-operation with architects, construction engineers and roofing contractors have resulted in complete and reliable solutions comprising rubber membranes, installation methods and compatible accessories; all backed by efficient technical service.

**Focus on the environment**

Environmental protection and care comes naturally to a supplier of products that contribute to the conservation of water, as well as the protection of goods and property from water leakage and moisture. Our rubber membranes are chemically stable and contain no problematic additives such as plasticisers, heat- or UV-stabilisers. They do not release any substances that cause allergies or hazards to the environment. Recycling options are available for membranes reclaimed from old installations.

SealEco

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May 2011