

# FLOATING COVER SYSTEMS

It is frequently beneficial to cover containment systems that are open to the air. Solmax manufactures a wide selection of geosynthetic products that can be used in floating cover applications – e.g., sewage ponds, chemical storage, leachate or industrial waste treatment – to control odors, and prevent contamination to or from the environment.

## Designed to seal and protect

Floating covers can add significant value in a number of applications:

- Seal off odors during storage or processing, making the site less offensive to neighboring communities.
- Aid anaerobic digestion systems by preventing oxygen intrusion into the storage pond.
- Facilitate gas collection in gas generating applications. A gas collection system installed under the floating cover can collect gas for recycling, disposal or treatment, or to generate electricity or heat for use on site.
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- Facilitate gas collection in gas generating applications. A gas collection system installed under the floating cover can collect gas for recycling, disposal or treatment, or to generate electricity or heat for use on site.
- Offer a more cost-effective alternative to steel or concrete storage containers for closed loop chemical processes or liquid chemical storage.
- Prevent debris and other materials, such as oxygen and rainwater, from infiltrating the storage pond and contaminating the stored liquids.
- Prevent wildlife from being poisoned by the stored liquid or from falling into the storage facility and contaminating the liquid.

**Our floating cover system control odors, contain potable water, capture gas and prevent contamination to, or from the environment.**





### **Low permeability, high reliability**

As the most important function of a floating cover system is to keep the liquid and gases contained in the pond, and to keep rainwater and other contaminants out, low permeability is vital. Our high-density polyethylene (HDPE) geomembranes have the lowest water vapor transmission rate of all available geomembrane products. They also have very low gas permeability and excellent chemical resistance to a variety of acids, bases and hydrocarbon constituents that may be contained in the covered ponds. Internal accelerated aging testing indicates an anticipated lifespan of 18-50 years or more for HDPE geomembranes in exposed conditions.

### **Easy installation, low operating costs**

With a tensile strength of over 130 pounds per inch, installed covers are safe to walk on. The tension system supports localized weight. The cover remains in position with no strain on the clamped edge. Installation at most sites can be accomplished with no structural support preparation, pilings or reinforced soil base.

Additionally, covers for existing facilities can be floated into place with no disruption of service. The completed cover has very low operating costs with very little maintenance required.

We offer two types of floating covers:

- **Mechanically Tensioned Cover.** The cover is tensioned by pulling all of the excess material up the sidewall as the water level rises
- **Weighted Pipe Cover.** This is ideal for covers that have minimal water-level fluctuation, such as anaerobic digester covers and odor control covers.

### **Environmental benefits**

Solmax's floating cover systems help prevent contamination to, or from the environment. They outperform traditional, high energy consuming solutions such as concrete thanks to their outstanding engineering performance for the function they are intended to deliver.

#### **Advantages**

- ☑ Low permeability to water vapor and gasses.
- ☑ Outstanding chemical resistance and mechanical properties,
- ☑ Environmental stress crack resistance
- ☑ Dimensional stability
- ☑ Good thermal aging
- ☑ Excellent resistance to UV radiation
- ☑ Suitable for exposed conditions
- ☑ Low operating costs
- ☑ Quick, easy, economical installation

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