
Reliability. Efficiency. Practicality. Three characteristics that are desirable in any construction product. But when you are talking about geomembrane applications, these three characteristics take on a whole new significance.

The sheer scale of some geomembrane applications underscores this point. Lining canals, reservoirs, and ponds full of millions of gallons of water is serious business. And even on applications that are smaller in scale, the impact of a waterproofing problem can be enormous.

When looking for a solution for such a challenge, you must feel confident in the product you choose and the company that manufactures it. Throughout Europe and North America, governments, and private and public businesses have chosen Siplast Teranap for their most demanding geomembrane applications.

Reliability
The Siplast story of uncompromising quality and commitment to our customers begins over half a century ago with an innovation that would change the commercial roofing and waterproofing industry. In the 1960s, working with Shell Chemical of Europe, Siplast developed styrene-butadiene-styrene (SBS) modified bitumens. We found that by properly modifying asphalt with SBS, we could produce a highly durable elastomeric blend with exceptional elongation/recovery properties over a wide range of temperatures. The development of Teranap, an elastomeric bitumen geomembrane manufactured using this scientifically engineered blend, soon followed.

Since then, Teranap Geomembrane has earned a successful performance record as the high performance waterproofing solution for irrigation canals, dams, wastewater storage, fountains, reservoirs, and ponds. Because Teranap Geomembrane has an NSF Potable Approval, it is also suitable for use in potable water storage applications.

The elastomeric modified bitumen blend allows Teranap to remain flexible over time, to relax and quickly conform to substrate contours, and to withstand settlement changes in the subgrade.

The blend is reinforced by two layers of polyester, making Teranap less susceptible to punctures resulting from most common causes. Teranap’s thick, nonwoven polyester geotextile reinforcement layer protects against mechanical punctures and
enhances the product’s flexibility. Teranap is lightly sanded on one side, and has a polyester film bottom layer that protects the geomembrane from subgrade effects.

Teranap is produced in two widths and a range of thicknesses, allowing a choice of material most suitable for a specific application. Teranap 331 is 120 mils thick, and Teranap 431 is 160 mils thick. Both are manufactured in 2-meter and 4-meter widths, and lengths from 20 to 100 meters. Custom lengths are available upon request.

For sloped applications where concrete is to be applied directly to the Teranap surface, such as those commonly found in large canals, Teranap GTX is available. Teranap GTX is 156 mils thick, and is surfaced with a nonwoven polyester geotextile.

**Efficiency**

Ease of installation is a major advantage of Teranap, which can be applied over both earthen and concrete substrates. Crews installing Teranap can be extremely efficient, helping projects stay on schedule and on budget. Substrate preparation costs can be significantly reduced because Teranap’s flexibility allows it to tolerate irregularities in substrates that would damage other less flexible geomembranes.

Placement of the Teranap Geomembrane can be accomplished in a variety of ways, using common equipment. Decisions regarding which technique to use can be based on site conditions and crew preference.

The simple torch welding seaming technique used in Teranap installation helps to eliminate seam leakage problems. Unlike seaming methods used in other geomembrane applications, torch welding using a propane gas torch does not require special equipment or the use of chemicals for bonding. It is less sensitive to weather, dirt, and other contaminate. Torch seaming is also less sensitive to weather restrictions, making it a practical choice for work that has to be accomplished in winter months.

**Practicality**

Torching a patch over the affected area, in-house maintenance departments can make repairs simply and quickly if Teranap geomembrane is accidentally damaged. The elastomeric nature of Teranap allows this repair procedure to be used during annual inspections for the service life of the product.

**For More Information**

Teranap is an innovative geomembrane engineered by the acknowledged industry leader in SBS-modified bitumen technology: Siplast. Whether you’re lining a lateral or moving billions of gallons of water from Northern California to the southern part of the state, Teranap can provide a high performance solution.

For more information on Teranap Geomembrane, visit the Siplast Web site at www.siplast.com or call 1-800-922-8800.

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**Teranap Geomembrane**

- **Anti-piercing Polyester Film**
- **Elastomeric Bitumen**
- **Non-woven Polyester Reinforcement**
- **Elastomeric Bitumen**
- **Anti-piercing Polyester Film**

The simple torch welding technique used in Teranap installation helps to eliminate seam leakage problems. Teranap is available in 2-meter and 4-meter widths, and lengths from 20 to 100 meters.

Torch welding of seams does not require special equipment or the use of chemicals for bonding.
Irrigation canal projects benefit from the fact that Teranap Geomembrane installation does not require special equipment or chemicals for bonding.