



**WHITE
PRIME FINISH**

WHITE PRIME FINISH GEOMEMBRANES ARE COOLER AND MORE DURABLE

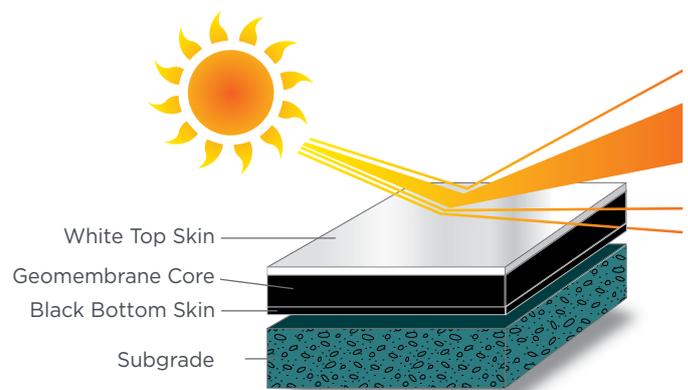
Solmax's White Prime Finish can be added to any high-density polyethylene (HDPE) or linear low-density polyethylene (LLDPE) geomembrane, offering substantial technical benefits to containment applications. As the white finish reflects sunlight, the geomembrane can be up to 40°C (104°F) cooler than dark or black geomembranes that absorb heat. This reduced temperature positively affects the durability of the geomembrane, its weldability, quality control, ease of installation, and the imperviousness of the overall system.

HOW IT'S MADE

Solmax's White Prime Finish is a thin white polyethylene layer that is coextruded within any typical three-layer Solmax geomembrane to form a monolithic material with uniform properties.

The three layers of a traditional black PE membrane comprise ≈97% polyethylene (PE) resin, 2%-3% carbon black for protection from UV radiation, and ≈1% anti-oxidants to slow down the oxidation of the geomembrane. In White Prime Finish geomembranes, the core and bottom layer (≈97% of thickness) are made of the same raw materials and additives as traditional black geomembranes. The top layer (≈3% of thickness) is modified with the addition of a white pigment, Titanium Dioxide (TiO₂), and UV additives that give the geomembranes the same UV resistance as traditional black geomembranes.

As the TiO₂ is used in similar concentrations as the carbon black and also behaves in the same manner, the monolithic properties of the coextruded PE layers remain the same. The mechanical, physical and durability properties, such as tensile strength, stress crack resistance and oxidative induction time (OIT) properties, also remain the same.



DURABILITY

Solmax's White Prime Finish lowers the impact of heat degradation. Studies using an accelerated-aging xenon irradiation chamber show that Solmax's White Prime Finish improves UV resistance, helping to maintain the geomembrane's temperature at 40°C (104°F) cooler. Due to the cooler temperature, contraction and expansion are reduced by up to 40%. This protects the mechanical properties, and extends the service life of the geomembrane.

EASY INSTALLATION

On a hot day, the surface temperature of black liners can exceed 72°C (162°F). The resulting thermal expansion and contraction cause the liner to wrinkle and deform, making installation difficult. Cooler White Prime Finished geomembranes are easier to install as the material is more predictable.

In addition, the white layer improves extrusion welding practices, providing a visual guide for preparatory grinding. When a black welding rod is used, extrusion welded patches are easily located due to the color contrast with the white surface. There is also better quality control thanks to easier visual detection of pre or post-installation damage (any damage greater than the thickness of the white layer is easily seen).

PRIME FINISH FITS OUR GEOMEMBRANE RANGE

By simply changing the pigment that is used on the surface of black geomembranes, Solmax is able to offer the White Prime Finish for most of its standard PE series. It can also be combined with other Prime Finishes, such as the Leak Location Conductive Prime Finish or with other standard finishes such as Textured and Smooth Surfaces.



OUR LOCATIONS



Solmax is the world's largest geosynthetics manufacturer with plants in North America, Europe, Asia, and the Middle East. Used in critical applications in more than 60 countries by the biggest names in mining, petroleum, waste management, water, and civil engineering, our products contain and drain - creating a layer of protection between our most precious resource, the earth, and the waste and contaminants that result from human activity, industry, mining, and the use of fossil fuels. Our mission is to enable progress with minimal damage to the environment.

**AIM FOR THE SKY.
WE'VE GOT THE GROUND COVERED.**

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