



HYPAFLEX®

CHLOROSULFONATED POLYETHYLENE [CSPE]

TRUSTED LONG-TERM POTABLE WATER PROTECTION

When it comes to long-term performance in exposed liner and cover applications, HypaFlex® (Chlorosulfonated Polyethylene – CSPE) is the gold standard. Engineered to withstand extreme heat and UV exposure, HypaFlex® is also NSF 61 compliant for contact with potable water and has been used extensively for water containment and protection for over 50 years and is backed with an industry-leading 30-year weathering warranty.

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TRUSTED POTABLE WATER PROTECTION



The use of HypaFlex® floating covers in reservoirs is one of the most economical methods of storing and treating large volumes of water. Reservoirs using HypaFlex® are often up to 70% more cost-effective versus above-ground tanks or underground clearwells. With over 400 successful floating cover projects worldwide, you can trust that HypaFlex® is built to last.

When it comes to reliability and longevity, HypaFlex® geomembranes boast an impressive track record. For over 45 years, they have been successfully utilized as lining and cover materials in North America. Some of the very first HypaFlex® cover installations, dating back to 1968, continue to perform remarkably well to this day, attesting to the product's unwavering dependability.

Furthermore, approved HypaFlex® applications come with an industry-leading 30-year weathering warranty. This warranty further reflects our commitment to the quality and durability of our product.



EXCELLENT UV RESISTANCE

The saturated, stable polymer backbone structure provides excellent longevity and UV resistance, ideal for long-term exposed applications.



ENHANCED FLEXIBILITY WITHOUT VOC'S

Does not require the use of volatile materials such as liquid plasticizers, process oils, or stabilizers used to achieve a high degree of flexibility.



IMPROVED CHEMICAL RESISTANCE

HypaFlex® is highly resistant to ozone, oxidation, weather (UV), changes in color, temperature, abrasion, oils, and other chemicals.

INSTALLATION

Layfield Geosynthetics is one of the most prominent installers of HypaFlex® liners and floating cover systems in North America. Our installation crews are trained in quality control, safety, and project management.

The HypaFlex® series of geomembranes are flexible, allowing prefabrication into large panels at our facility. All welded seams of our HypaFlex® liners are inspected using the air lance test, ensuring there are no flaws in the weld. The prefabricated panel is accordion folded, rolled on a core, and delivered to the job site secured to a pallet. The prefabricated panel can cover a small project with a single panel. Local labor forces can be used to unroll and unfold the panel. On larger projects, Layfield installation teams can help join the panels.

Layfield has spent years developing innovative thin-film seaming technology. Our primary field welding of HypaFlex® is with hot wedge welding technology. Field wedge welding of HypaFlex® provides strong seams and fast installations on large projects.

REPAIRS

Unlike other geomembranes that oxidize over time and require specialized welding equipment, the stable molecular structure of HypaFlex® enables repairs to be carried out throughout the life of the geomembrane. A simple four-step process is needed:

1. A common solvent is used to prepare the surface.
2. CSPE adhesive is applied to both surfaces.
3. Heat is applied using a heat gun.
4. Pressure is applied with an application roller.

AVAILABLE STYLES

HypaFlex® materials are available in several styles and colors with variations in the number of plies, the type of supporting scrim, and the overall thickness of the liner.



HypaFlex® uses inorganic pigments that provide permanent color. Proper color selection reduces environmental impact while providing a desirable appearance. Light colors have lower surface temperatures when they are exposed to sunlight.

CASE STUDY



CSPE LINER AND FLOATING COVER SYSTEM PITTSBURGH, PENNSYLVANIA, USA | 2021 PWSA LANPHER RESERVOIR

The supply and installation of a HypaFlex® liner and floating cover system as part of a refurbishing and upgrade project for Pittsburgh Water & Sewer Authority's (PWSA) Lanpher Reservoir. The Lanpher Reservoir is a double reservoir, potable water storage system (East & West reservoirs) with a total capacity of 146 million gallons.

This reservoir system upgrade included concrete restoration repairs and a newly designed liner and floating cover system. The material selected for the new geomembrane liner and floating cover was a 60 mil (1.5 mm) thick reinforced HypaFlex™ (Chlorosulfonated Polyethylene) product.

[READ FULL CASE STUDY HERE ►](#)



HYPAFLEX® LINER & FLOATING COVER
SPRING VALLEY, CALIFORNIA, USA
OTAY WATER DISTRICT UPPER RESERVOIR

36,700,000 Gallon Capacity



HYPAFLEX® FLOATING COVER SYSTEM
LOS ANGELES, CALIFORNIA, USA
POTABLE WATER RESERVOIR

67,000,000 Gallon Capacity



HYPAFLEX® FLOATING COVER SYSTEM
RAMONA, CALIFORNIA, USA
POTABLE WATER RESERVOIR

10,000,000 Gallon Capacity