

# HYPAFLEX™

## CHLOROSULFONATED POLYETHYLENE [CSPE]

HypaFlex™ (Chlorosulfonated polyethylene - CSPE) is a premier reinforced flexible geomembrane with excellent longevity and UV resistance.



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# TRUSTED POTABLE WATER PROTECTION



## WHY CHOOSE HYPAFLEX™?

- ✓ The premier product for floating covers
- ✓ Exceptional longevity and UV resistance  
Up to 30-year weathering warranty
- ✓ Highly flexible without the need for plasticizers or additives
- ✓ Over 45 years of extensive use in North America as a lining and cover material
- ✓ Available in several styles, colors, with variations in the number of plies, and overall thickness of the liner.
- ✓ NSF Certified for contact w/potable water

HypaFlex™ (Chlorosulfonated Polyethylene - CSPE), formerly known as Hypalon, is a high-performance geomembrane material designed for long-term applications, including floating covers and exposed liners. As a floating cover material, HypaFlex™ provides truly outstanding UV protection and long-term performance. HypaFlex™ floating covers are engineered to eliminate evaporation and protect the water source from contaminants, including dirt and debris. HypaFlex™ has been used extensively for water containment and protection applications for over 45 years and is backed with an industry-leading 30-year weathering warranty. HypaFlex™ geomembranes and floating covers are used worldwide in containment applications to protect water, including municipal water districts, mining, oil and gas, and agriculture.

## EXCELLENT RESISTANCE TO UV

HypaFlex™ geomembranes have a saturated, stable polymer backbone structure providing exceptional longevity and UV resistance. CSPE is the premier material for long-term exposed applications

## CHEMICAL RESISTANCE

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

## FLEXIBILITY

HypaFlex™ is a highly flexible material and does not require the use of volatile materials such as liquid plasticizers, process oils, stabilizers, or other lower molecular weight ingredients used to attain flexibility. HypaFlex™ remains flexible over the life cycle of the product.

## RELIABILITY & LONGEVITY

HypaFlex™ geomembranes have been used as a lining and cover material in North America for over 45 years. Some of the first HypaFlex™ cover installations date back to 1968 and are still performing today.

## WARRANTY

An industry-leading 30-year weathering warranty is available on approved HypaFlex™ applications.



# 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.

Layfield's HypaFlex™ series of geomembrane is flexible, allowing prefabrication into large panels at our facility. All welded seams of our HypaFlex™ liners are inspected using the air lance test, ensuring 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, while on larger projects, Layfield installation forces 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:

- A common solvent is used to prepare the surface.
- CSPE adhesive is applied to both surfaces.
- Heat is applied using a heat gun.
- 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.

# PROJECT PROFILE



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

Layfield Geosynthetics completed the supply and installation of a CSPE 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 CSPE (Chlorosulfonated Polyethylene) product. The project scope also included demolishing and removal of an older liner and cover material. **To read the full project profile, please visit us online at [www.LayfieldGroup.com/ProjectProfiles](http://www.LayfieldGroup.com/ProjectProfiles).**



**VIEW WEBINAR**

*When the need arises to expand your water storage capacity, a floating cover is the most cost-effective solution when compared to other alternatives. If you are interested in learning more, please be sure to check out our latest webinar on 'The Economics of Open Top Reservoirs with Floating Covers'.*

*Visit us online at [layfieldgroup.com/webinars](http://layfieldgroup.com/webinars)*

# ADDITIONAL PROJECTS



**CSPE LINER & FLOATING COVER SYSTEM**  
SPRING VALLEY, CALIFORNIA, USA  
OTAY WATER DISTRICT UPPER RESERVOIR

36,700,000 Gallon Capacity



**CSPE FLOATING COVER SYSTEM**  
LOS ANGELES, CALIFORNIA, USA  
POTABLE WATER RESERVOIR

67,000,000 Gallon Capacity



**CSPE LOADING COVER SYSTEM**  
RAMONA, CALIFORNIA, USA  
POTABLE WATER RESERVOIR

10,000,000 Gallon Capacity