

AGRU Specialized Liners

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COEXTRUDED COLOR AND CONDUCTIVE GEOMEMBRANE LINERS



The Plastics Experts.

AGRU geosynthetic liners are manufactured with only the highest-grade polyethylene resins using the calendared flat-die extrusion process. This manufacturing technique allows for coextruded liners with multiple features such as surface textures and secondary properties. The benefit of this process is liner with consistent textures, stud and spike heights, thickness, and an array of secondary features without compromising liner integrity.

The AGRU success story has been unfolding for seven decades. Founded in 1948 by Alois Gruber, who set the company on the course for plastic manufacturing, AGRU has become one of the world's most important single-source suppliers for piping systems, semi-finished products, concrete protection liners, and lining systems made from engineered plastics. We use only top-grade thermoplastic polymers as our raw materials. When it comes to application-technical consulting, we are your best partner in the field.



Quality

Customer satisfaction comes first at AGRU. Technical consultations are an essential component of our customer service. The AGRU quality assurance system is compliant with multiple international standards and AGRU's procedures help ensure that products meet or exceed international standards, on an ongoing basis.

AGRU Specialty Liners

To meet unique project requirements, AGRU America manufactures several highly customized specialty liners. These top-of-the-line products include color liners (white and green) and conductive liners are backed by AGRU America's limited material warranty.

AGRU Color Liners

White Liner

AGRU white surfaced geomembrane liners are a coextruded product that adds a layer of white geomembrane onto a layer of black AGRU geomembrane. This white liner component offers a light reflective surface that helps control the liner's thermal properties, reducing associated heat absorption by as much as 50%. Reducing absorbed heat helps avoid membrane wrinkling and other damage as a result of excess thermal expansion and contraction. Liners are especially susceptible to wrinkling during daytime installations over the summer months. By reducing wrinkles and waves, installers can minimize the probability for leaks to occur.

Additionally, the white liner component of AGRU's geomembranes is manufactured with high-grade pigment additives that do not inhibit the liner's welding capability. The final product is durable with consistent welding performance across the length of the liner.

Green Liner

Green-surfaced geomembranes can help improve the overall aesthetics of the project by blending the liner with the surrounding flora.







Applications

Coextruded color liners help enhance a number of qualities of exposed geomembranes used for landfill caps and closures.

Technical Overview

- AGRU color liners are available in high-density polyethylene (HDPE) and linear low-density polyethylene (LLDPE) and can be further customized with a structured surface for improved slope stability and a conductive layer for leak identification
- Minimizes heat absorption—and resulting thermal expansion—by up to 50%
- Significantly improves damage detection during installation.

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AGRU Conductive Liners

AGRU Conductive Liner is a coextruded geomembrane that contains a lower layer with a higher carbon loading as compared to other polyethylene-based liners, allowing this specialty liner to conduct electrical charges. This feature allows Construction Quality Assurance Testing for possible holes, punctures, tears, cuts, cracks, and similar breaches over the partial or entire area of an installed geomembrane using test method ASTM D7240-18. This test uses an electrically charged wand to locate electric flow through such breaches to the subgrade soil beneath. In the case of AGRU's conductive liner, the electrical charge can flow along the underside of the liner, thus can be used on the primary (not in contact with the subgrade) in double-lined applications.

Conductive liner is implemented for improved quality control processes by removing the reliance on the human eye for post-installation inspections. One unique feature of AGRU's Conductive MicroSpike Liner is its improved strength and elongation strength qualities when compared with the industry standard.

Technical Overview

- Conductive geomembrane incorporates a thin coextruded conductive bottom layer that allows for spark testing per ASTM D7240-18 without the need for water.
- The area is swept with a brush-like test wand to locate points where the capacitor discharges through a leak. When the system senses the discharge current, it is converted to a visible spark and audible alarm.

Fully Customized Specialty Liners

Applications

Conductive liners can be utilized in many applications across many industries and projects including combustion residuals, environmental, civil engineering, mining, waste closure and containment, tunnels, waste and waste water, and energy, oil, and gas. However, because conductive liner is specifically designed for spark testing leak detection, it is most often used whenever the geomembrane is exposed and covers some kind of liquid impoundment such as basins, ponds, tanks, and ore and waste pads.

AGRU possesses the manufacturing capability to deliver fully customized geomembranes or even complete systems to meet an array of project requirements. AGRU White Conductive Liner with MicroSpike, for instance, possesses all the qualities of white liner, conductive liner, and AGRU MicroSpike to deliver geomembrane with improved slope stability, spark test leak detection, and white reflective surface for improved thermal resistance. The final product uses industry leading high-density polyethylene that sets AGRU geosynthetic products apart to exceed industry standards in strength and durability.

















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