



WASTE MANAGEMENT

LANDFILL CELL

MUNICIPAL WASTE

Modern landfills are highly engineered, the safest and most economical solution for managing municipal waste. Specifically designed to prevent contamination of the environment, they are usually constructed out of numerous dimensional layers of geosynthetics and soil layers, each performing a specific function within the containment area.

The main requirement for a municipal solid waste landfill is that it does not pollute, contaminate or degrade its environment.

Our high-density polyethylene (HDPE) geomembranes are engineered to withstand deterioration with proven durability for long term use in both buried and UV exposed conditions, preventing leakage into groundwater, and providing stability on steep slopes.

Our geosynthetic clay liners (GCLs) are installed below the geomembrane to form a composite barrier system with superior hydraulic barrier performance.

HAZARDOUS WASTE

Corrosive, flammable, reactive, and poisonous materials have to be contained in specialized facilities to prevent them from damaging the environment. As such, most industrialized countries have developed regulations to dispose of these materials in a secured landfill cell that is designed with a double-lining system, which is now the standard in most countries.

Our engineered and high-performance geomembrane and GCL solutions, combined with effective drainage geocomposites, provide a pivotal function for an effective double-lining system design. This creates an impermeable barrier lining system at the base of the facility to prevent hazardous waste and high concentrated leachate from getting into the environment.

INDUSTRIAL WASTE

Industrial activities produce a significant amount of waste and while efforts are increasing to reuse and recycle material a large quantity still requires properly managed waste disposal. Our broad range of geomembranes and GCLs will support you in developing cost-effective long-term containment solutions.

Waste from factories, construction sites, manufacturing plants and other industries require specialized waste containment solutions.

The use of geosynthetic products help to keep your waste disposal facility compliant with health, safety and legal requirements

LANDFILL CAPPING

Major long-term concerns when capping landfills include the differential settlement due to the biodegradability of the waste, slope stability and surface erosion of the soil layer. The cap and its foundation needs careful design and choice of barrier systems.

In a landfill cap a geosynthetic liner system represents a small fraction of the overall cost but virtually 100% of the protection.

Our geosynthetic solutions have been proven to perform a multitude of functions concurrently. From accommodating differential settlement, gas venting and gas collection, to keeping moisture from entering the waste containment.

LEACHATE CONTAINMENT

Leachate is generated when excess water passes through waste, dissolving soluble substances. Landfill leachate collection is necessary to reduce leachate buildup in the cell. Containment and treatment of this leachate is therefore a key component of waste management to prevent contamination of the environment.

Geosynthetics can be utilized to create safe and cost-effective barrier solutions. GCLs act as a secondary or tertiary barrier, while leak detection geomembranes are used as primary and secondary barriers. Leak detection can happen at any time when these geomembranes are combined with drainage geocomposites, addressing even the highest environmental concerns.

GCLs are ideally suited for use in landfill caps and closures. Used alone or in conjunction with a linear low-density polyethylene (LLDPE) geomembrane it provides excellent resistance to the deleterious effects of differential settlements and seasonal temperature fluctuations.

Covered caps need significant design considerations and maintenance to avoid erosion of the cover. Those issues are eliminated with the fully anchored and fully synthetic grass capping system.



REMEDIATION

Abandoned landfills are a growing environmental concern as many of these were not operated with today's regulatory standards. Capping and remediating abandoned landfills present opportunities for beneficial reuse.

While remediation of these sites present a huge geotechnical challenge, capping and vertical barrier systems offer opportunities to address issues of erosion, gas migration, and groundwater protection.



WASTE MANAGEMENT SOLUTIONS

HDPE SERIES



HDPE Series is a high-density polyethylene geomembrane that exceeds the requirements of the international and local specification standards for HDPE geomembrane liners. This series of geomembrane liners offers proven performance as a primary containment barrier in landfill applications.

LLDPE SERIES



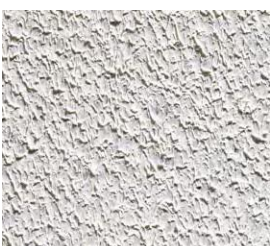
LLDPE Series is a linear low-density polyethylene geomembrane that exceeds the requirements of international and local specification standards for LLDPE geomembrane liners. The flexibility and elongation performance of this series of liners are the perfect solution for landfill cell cover design.

LEAK LOCATION CONDUCTIVE



Leak Location Conductive is essential where you can't afford a leak. It is the most cost-efficient and reliable leak detection method in the industry, improving damage detection in both exposed and covered landfill applications, even after installation.

WHITE REFLECTIVE



White Reflective helps to keep the liner cooler, resulting in fewer wrinkles. Fewer wrinkles mean the easier installation of cover soil and increasing the lifespan of the liner.