

Next Generation Geosynthetics

Synthetic Aggregate Systems, LLC

Synthetic Aggregate Systems, LLC (SAS)

markets their patents and pending applications that complement or replace sand, stone, and gravel in environmental, sportfields, and civil construction applications. These advance the state of engineering practices and solve specific geotechnical design problems associated with constructing structures in the above market applications. These solutions are driven by innovations that benefit customers by reducing construction costs and increasing performance.

SAS is committed to customer service, engineering support and technical expertise. Our team of experienced professionals is available to provide you with innovative, cost-effective geosynthetic product solutions.

SAS is the civil construction market distributor for GSE Lining Technology, Inc. GSE is a leading manufacturer and installer of geosynthetic lining products and services worldwide.





Innovation

SAS's technologies have been developed to utilize synthetic materials to complement or replace aggregates in construction applications.

Our success is evidenced by ten issued commercially viable U.S. and foreign patents and over a dozen pending patent applications. These patents transcend more than a decade in the most challenging design conditions encountered in our fields of endeavor.

Our patents and pending applications have successfully replaced conventional earthen construction materials with synthetic aggregate technologies on municipal solid waste landfills, USEPA Superfund Sites, wastewater treatment plants, mine reclamation, professional and community sportfields, state and county highways, and municipal roadways.

Product Quality Control

SAS is supplying top quality geosynthetic products. GSE products must pass stringent quality testing prior to product delivery to ensure the best product available. At GSE's in-house laboratory trained staff conduct sophisticated research and development tests daily.

Geomembrane Products

GSE HD

High density polyethylene (HDPE) liners are the industry's most widely used material for lining. GSE HD liners provide unequaled chemical resistance and impermeability. They also have exceptional ultraviolet light resistance, excellent yield and seam strength.

GSE UltraFlex

Linear low density polyethylene (LLDPE) liners offer greater flexibility, allowing increased conformance to subsidence and differential settlement. High elongation properties make these liners ideal where conforming to irregularities in the subgrade would cause puncturing in other liners.

GSE HD Textured or GSE UltraFlex Textured

Textured high-performance HDPE and LLDPE geomembrane liners allow you to increase friction angles between layers.

GSE White

GSE White is a patented, coextruded, light-reflective HDPE or LLDPE geomembrane liner. It reduces heat build-up and wrinkles in the geomembrane.

GSE Conductive

GSE Conductive is a patented, 100% spark testable, premium grade, HDPE geomembrane liner. It allows for easy and efficient spark testing of the installed



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material to detect post-installation damage and locate potential leaks.

Geonet, Geocomposite & Geotextile Products

GSE HyperNet

An HDPE crossed strand mesh geonet that can replace thick aggregate drainage layers. Installation is easier and more economical because GSE HyperNet is lightweight and made from the same resin type used in GSE HD. It is also resistant to chemical degradation and biological attack.

GSE FabriNet

Geocomposite drainage products are produced by heat bonding high quality geotextiles to one or both surfaces of the GSE HyperNet geonet. The permeable textiles act as separators and filters, keeping soils out of the HyperNet drainage layer.

GSE Nonwoven Geotextile

A family of polypropylene, staple fiber nonwoven needlepunched geotextiles available from 4 to 32 oz/yd² (135 to 1,080 g/m²).

Geosynthetic Clay Liner (GCL) Products



Bentofix® GCL

Bentofix® fabric encased GCL is a needlepunched composite containment liner that combines durable geotextile outer layers with an inner layer of low permeability sodium bentonite. The needlepunched, thermally bonded fibers reinforce the bentonite layer, providing high internal shear strength that makes this the ideal GCL for steep slopes.



GSE GundSeal GCL

GSE GundSeal geomembrane supported GCL is the most hydraulically advanced lining product available with improved leakage performance compared to conventional geomembrane and clay composite liners.

Concrete Protection Products



GSE StudLiner

An HDPE studded geomembrane protection system protects against corrosion and deterioration of concrete structures including tanks, pipes, manholes, drainage channels, and tunnels, resulting in increased facility service life and lower maintenance costs.

Engineered Sportfield Solutions, LLC (ESS)

ESS is our brand of proprietary products created specifically for



synthetic turf sportfields. We provide the most innovative sportfield solutions in the industry today with a unique mix of products and services that help create optimal synthetic turf surfaces. Our systems will enhance field safety and long-term performance with no increase to traditional construction and maintenance costs.

Product Applications

SAS can offer a variety of GSE products to be used in the following applications:

- Airports
- Roads
- Bridges
- Retaining Walls
- Dams
- Sportfields
- Parking Lots
- Tunnels
- Railroads
- Waterproofing

Project Support

No matter what your construction project size is, from management, sales and technical support, SAS offers technical, engineered recommendations to protect and reduce your overall construction project.







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