Super Gripnet® Geomembrane

Applications for HDPE and LLDPE Agru Super Gripnet® include projects where drainage and high interface friction, as well as cost savings, are critical, such as landfill caps, landfill slopes and mining reclamation projects.

agru america

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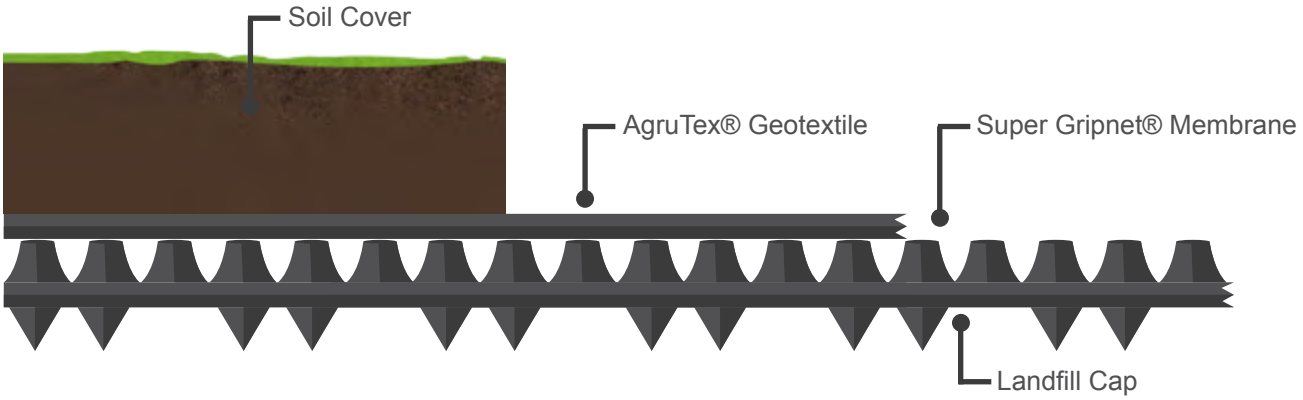
Recent bids for installations have indicated significant cost savings from material and installation with the use of Super Gripnet® as a replacement for traditional geocomposite overlying a textured geomembrane.

Agru America's structured geomembranes are manufactured on state-of-the-art manufacturing equipment using a flat cast extrusion manufacturing process with tighter thickness control and more consistent product than is possible with the blown film extrusion process. We use only the highest grade of HDPE and LLDPE resins manufactured in North America.

The structured geomembrane is manufactured by a continuous horizontal flat die extrusion into profile rollers, which give the product the final structured surface with drainage studs and spikes that will become an integral part of the liner. This process provides a smooth edge for on-site welding and a consistent core thickness, which provides higher sheet tensile strength and consistent high-profile texturing, resulting in higher interface friction capabilities and consistent drain capacity.



Interface Shear - Cap Loading Conditions (ASTM D 5321)		
Soil/Grip Liner Surface	P	LD
Coarse Sand	35°	31°
Glacial Till	38°	34°
Silty Sand	28°	26°
Non-Woven GT	31°	26°
Soil/Drain Liner Surface with GT	P	LD
Coarse Sand	30°	30°

Note: The above values are representative friction angles only. It is recommended that site specific conformance testing be carried out using the actual soils, geosynthetics and loading conditions for a specific project.

P = Maximum or Peak Interface Shear Value in degrees

LD = Large Displacement Interface Shear Value in degrees

GT = Geotextile

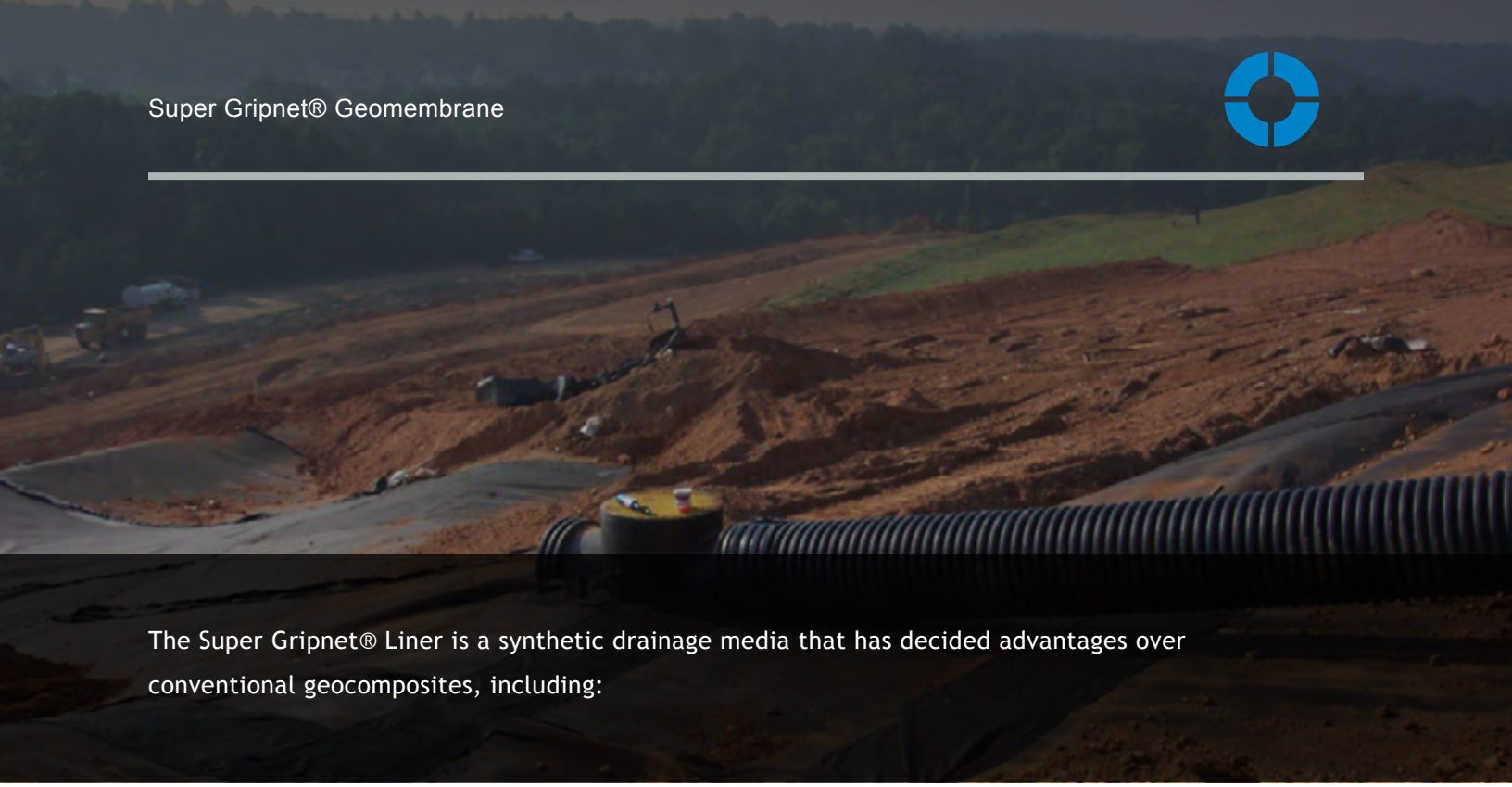
The machine rollers provide the final structured surface with a 3.3 millimeter (0.130 inches) high studded drain surface on the top side and 4.45 millimeter (0.175 inches) high spiked friction surface on the bottom side. The 7 meters (23 feet) wide rolls of finished product include a smooth edge on both sides of the roll for ease of thermal welding in the field. Due to the molded structure, core thickness does not vary as with blown film textured sheets, so the mechanical properties of the sheet are not affected. In addition, the consistent high-profile texture ensures optimum interface friction characteristics at any point on the sheet surface.

The top surface integral drainage studs are spaced in a diamond pattern with 12.5 millimeters (1/2 inches) spacing, and a filter/protection geotextile is then placed on the drain profile. The geotextile is heat set on one side (placed against the drain structure) to reduce intrusion into the drain. Large-scale flow rate testing, overlying soils and expected normal loads result in high planar flow rates.

The bottom spiked friction surface with its high spikes and patterned texture provides maximum interface friction and a high factor of safety against sliding.

US Patent - No. 5.258.217

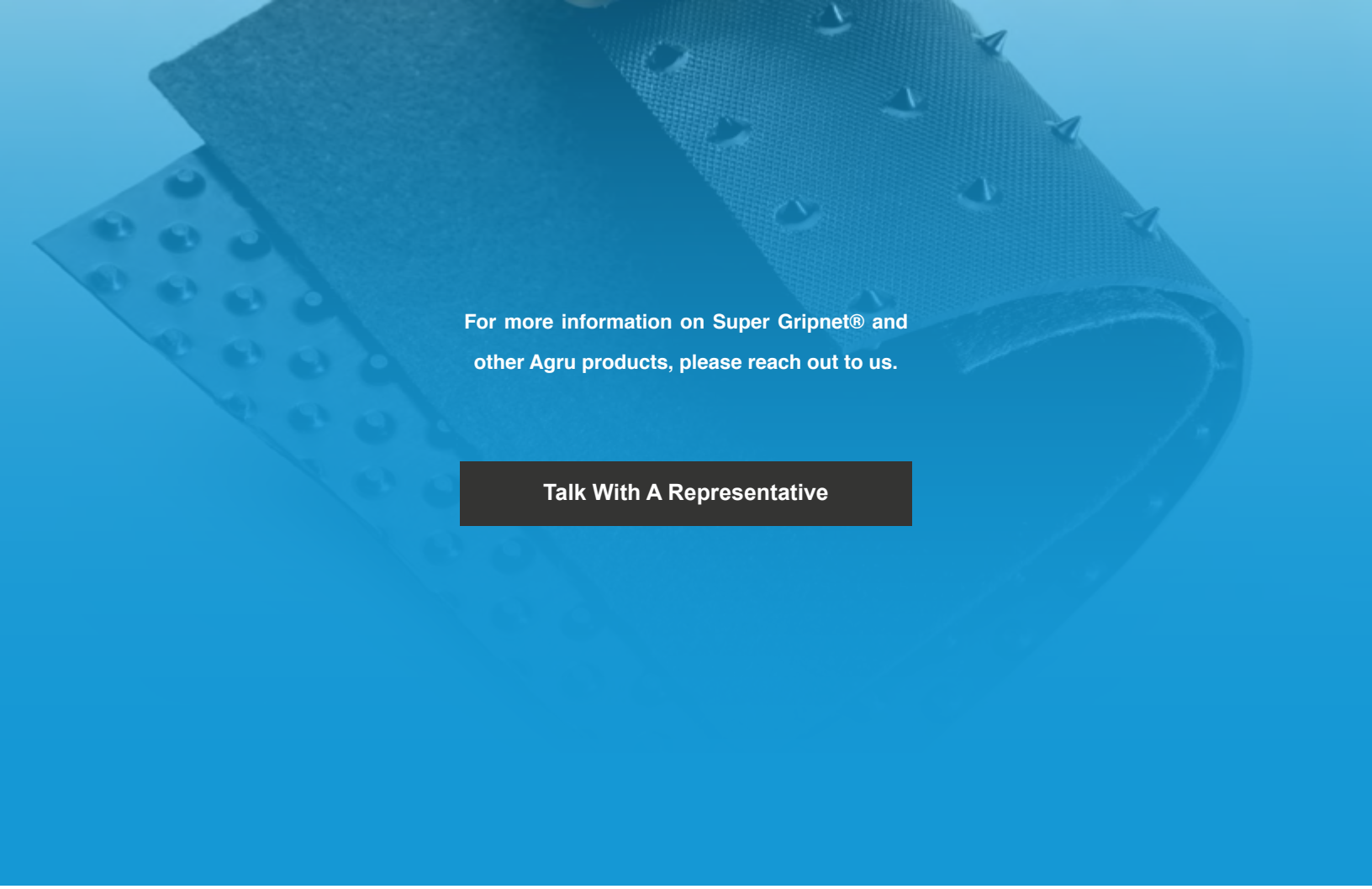
- Combines Drainage with Shear Resistance
- High Water Flow Rate on Top Side
- Spike/Texture Bottom
- Consistent Drain and Structure Pattern
- Combine with Smooth
- Combine with Fabric



The Super Gripnet® Liner is a synthetic drainage media that has decided advantages over conventional geocomposites, including:

Cost Savings	• The drain media and liner are one and installed as one panel • No waste due to the fitting of geocomposite sections • Additionally, no extra waste from discarding roll end
Improved Planar Flow	• Less reduction for chemical/biological clogging considerations
Consistent Material	• Studs and spikes (drainage and friction) totally integrated with the geomembrane
High Interface Shear	• Exceptional shear resistance between soil and geotextile components allows flexibility and stability during protective cover material placement
Meets/Exceeds Project Requirements	• Excellent fluid barrier, drainage medium and friction characteristics

Agru's Super Gripnet® geomembrane is a high performance liner system with an integrated top surface drainage system that meets the functional needs of any project and provides an added benefit of substantial cost savings.



For more information on Super Gripnet® and other Agru products, please reach out to us.

Talk With A Representative

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