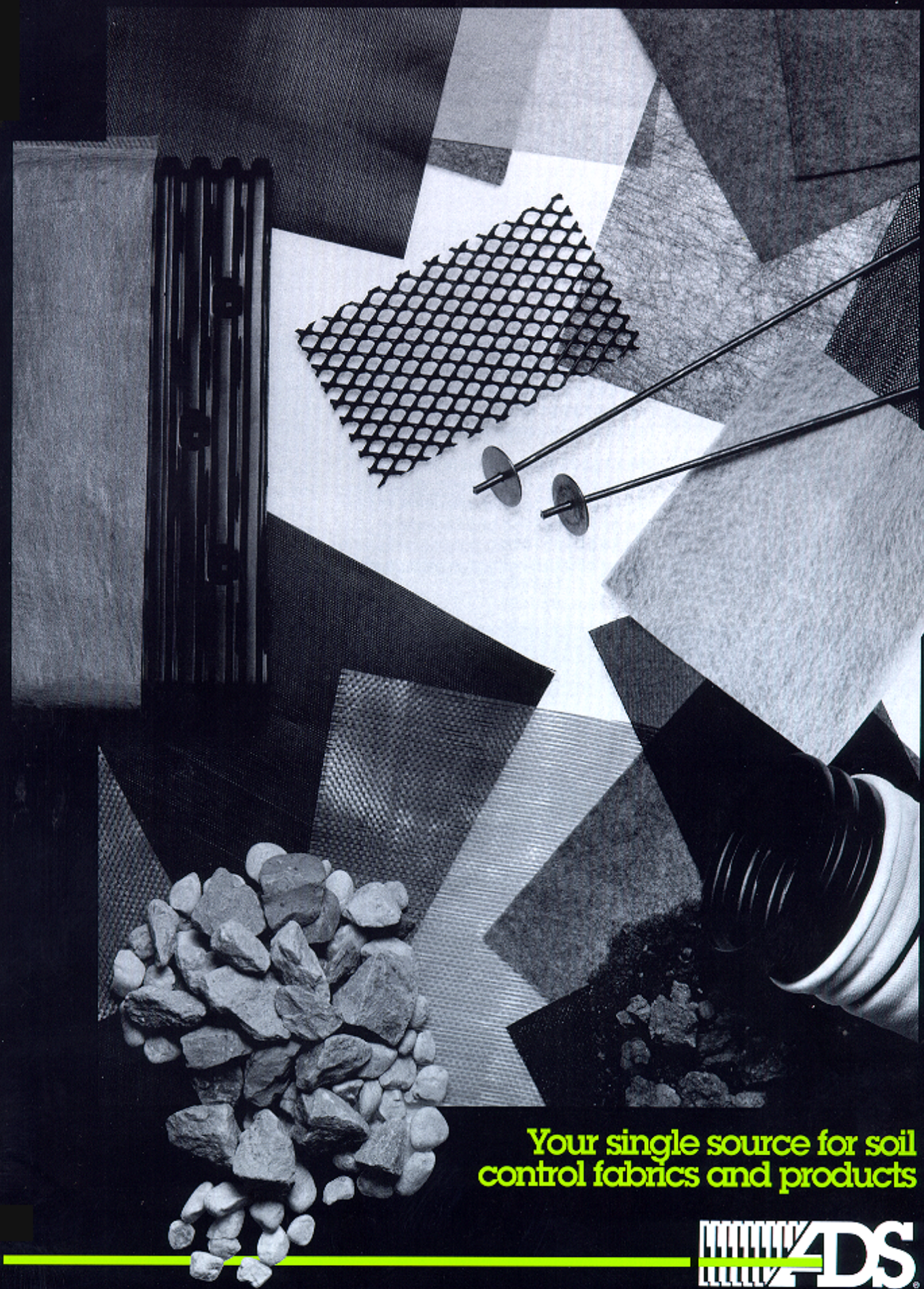
Geosynthetic Products



Your single source for soil control fabrics and products

ADS

A complete selection of construction fabrics and geosynthetic products

A Growing Industry

The acceptance and use of geosynthetics in subsurface construction has increased dramatically since their introduction in the 1960s. Growth accelerated in the 1980s with the establishment of minimum performance standards by many federal and state agencies, and the development within the industry of uniform testing methods and measurement criteria.

A Growing Variety of Products

The selection of geosynthetics is constantly expanding with new geometries and material compositions. Standard and specialty products are offered for soil stabilization and reinforcement, erosion control, drainage, filtration, separation, and other construction needs. All geosynthetics are strong, durable, chemically inert, environmentally compatible, and are virtually unaffected by the effects of ground conditions, weather, and aging. Other requirements, such as resistance to creep, temperature, and UV exposure, can be specified.

Most geotextile products are manufactured of polypropylene, a tough, lightweight fiber with excellent resistance to abrasion and biological degradation. Other polymers used in geosynthetic production include polyester, high density polyethylene, nylon, and expanded foam polystyrene.

ADS is Your Full-Line Source

A broad selection of geosynthetic products is available from Advanced Drainage Systems, many of which are in stock at our 53 sales and service locations throughout the nation. Whether it's for heavy construction or a home septic system, you'll find the right fabric, grid or composite for the job — along with the world's best selling line of corrugated polyethylene drainage pipe and fittings in 4" through 48" diameters.

Geotextile Applications

	Nonwoven - Needle Punched										Nonwoven - Spunbonded (Typar®)						Woven			
	3300	4000	4420	5000	6600	7000	7700	8800	1020	1220	3151	3201	3341	3401	3601	3801	9440	9530	9750	9670 (Mono-filament)
Subgrade Stabilization		•	•	•	•	•	•	•	•						•	•	•	•	•	
Subsurface Drainage	•	•	•	•	•	•						•	•	•						
French Drains	•	•	•	•									•	•						
Soil Reinforcement					•	•	•	•							•	•	•	•		•
Slope Protection		•	•	•	•									•	•	•	•	•		•
Railroad Trackbeds										•										
Landfills (Closure)						•	•	•	•	•						•			•	
Landfills (Expansion)					•	•	•	•	•	•										•
Daily Landfill Covers					•										•			•		
Paved/Unpaved Roads			•	•	•		•	•	•				•	•	•	•		•		
Parking Lots		•	•	•	•		•	•	•				•	•	•	•		•		
Landscaping	•	•	•								•	•	•							•
Septic Fields	•	•									•	•	•							

Applications

Subgrade Stabilization

ADS Geotextiles can improve the load carrying capacity of soils when used in road construction by providing a separation barrier that prevents aggregate fill from punching through into the subgrade under heavy traffic. When used in both road and railway construction, geotextiles enable the subgrade to develop its full bearing capacity and better distribute traffic loads. ADS Geotextiles can also be used to provide needed drainage and filtration functions.

Product Specifications

(per AASHTO M 288)

High Survivability Level:

ADS 9750	Woven
ADS 7000	Non-woven

Medium Survivability Level:

ADS 9530	Woven
ADS 3401	Spun Bonded
ADS 5000	Non-woven

Subsurface Drainage

ADS Geotextiles are ideal as a permeable separator to keep soil out of drainage systems while letting water pass through freely. Nonwoven geotextiles are available in a wide range of pore size, permittivity and weights to accommodate any drainage condition. A wide choice of fabric widths allow for efficient design and more economical installation costs.

Product Specifications

(per AASHTO M 288)

Class A (Coarse Stone Backfill):

ADS 7000	Non-woven
ADS 6600	Non-woven (92% of Grab Tensile)

Class B (<95% Compaction):

ADS 3300	Non-woven
ADS 4000	Non-woven
ADS 3401	Spun Bonded

Sediment Control (Silt Fence)

ADS preassembled silt fence is effective in controlling runoff from newly graded slopes, construction borders and other areas where sedimentation control is essential. ADS Geotextiles are also used to construct silt curtains in reservoirs and to control suspended solids around underwater excavation sites.

Product Specifications

Standard:

ADS 3301WE	24" width
ADS 3302WE	36" width

AASHTO M-288-SI 805:

ADS 3302WP	24" width

D.O.T. Specifications:
Refer to individual state D.O.T. requirements.

Erosion Control Under Rip-Rap

ADS Geotextiles are commonly specified in lieu of a conventional aggregate filter to protect shorelines by preventing soil on the banks from eroding through the covering layer of rip-rap. The use of geotextiles in this manner has been shown to provide substantial savings over aggregate filter systems with far greater control during construction, particularly in underwater applications.

Product Specifications

(per AASHTO M 288)

Class A (Unprotected Rip-Rap):

ADS 9530	Woven
ADS 8800	Non-woven

Class B (Protected Rip-Rap):

ADS 4000	Non-woven
ADS 3401	Spun Bonded
ADS 9530	Woven

Soft Soil Reinforcement

Weak soils under planned embankments can be reinforced with ADS Geogrids at considerable savings over conventional construction methods (soil displacement, stabilizing berms, etc.) One or more layers of Geogrids are simply laid over the existing foundation soil, and the embankment is then built to the required height.

Product Specifications

ADS 2211	Two-layer Geogrid
ADS 2312	Three-layer Geogrid
ADS 2413	Four-layer Geogrid
ADS 2514	Five-layer Geogrid
ADS 2615	Six-layer Geogrid

Steep Slope Reinforcement

The use of ADS Geocells and Geonets increases land use efficiency by permitting embankment slopes with far steeper face angles than would be possible with unsupported soils. The amount of usable land in private developments can be increased without the cost of traditional retaining walls. And in highway construction, roads can be widened without enlarging the existing right-of-way.

Product Specifications

ADS Geocells and Geonets are available in a number of configurations to meet varying project requirements. Consult factory for details.

Turf Reinforcement/Erosion Control

ADS three-dimensional erosion control mats protect and reinforce the turf on slopes, channels and ditches. The netting matrix affords optimum ground cover to resist erosion from raindrop impact and surface flow, without impeding the growth of vegetation. Installation involves pinning the mat to the ground and burying mat edges and ends. Top soil cover may be used to enhance temporary erosion protection and early vegetation growth.

Product Specifications

ADS 2200 Erosion Control Mat:

700 mm thick by 7.2 in. wide, in 98 ft. rolls

Pipe Wrap

Geotextiles placed around perforated collector pipe serve as a fabric filter to keep silt and sand from entering the pipe and building up to restrict or even totally block the flow of water. ADS Drain Guard® and Sock™ are commonly used in localities with fine native soils, and are very cost-effective because they can eliminate the need for the gravel backfill normally recommended to replace these soils.

Product Specifications

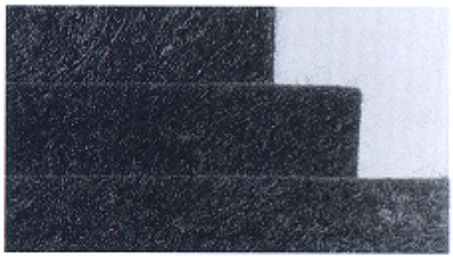
ADS Drain Guard®:
Available on 3" through 12" pipe

ADS Sock™:
Available on 3" through 24" pipe

ADS Product Selection

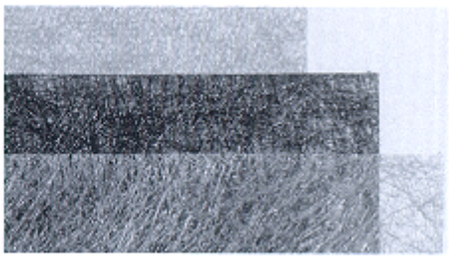
Geotextiles

Nonwoven - Needle Punched.



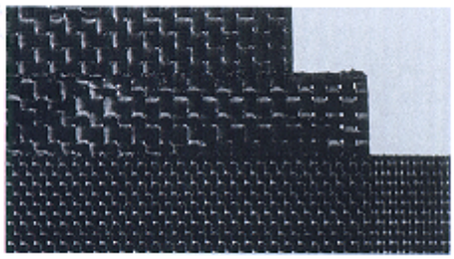
These fabrics are made from either long, continuous filaments or short, staple fibers which are then bonded by a needling process. Nonwovens typically have high permeability and conformability due to high elongation properties.

Nonwoven - Spunbonded (Typar®).



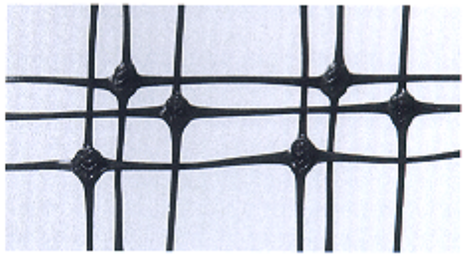
Typar is a thermally spunbonded polypropylene fabric with high initial tensile strength, elongation, permeability, and puncture resistance.

Woven.



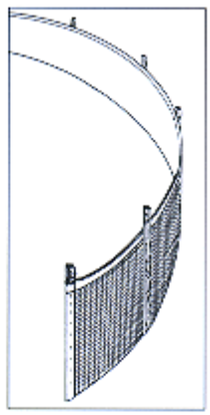
These are produced from interlaced yarns in a variety of weaving patterns. Yarns can be multifilament (many fine continuous strands held together by twisting or intermingling), or monofilament (single strand). Woven fabrics generally exhibit high tensile, high modulus, and low elongation.

Geogrids



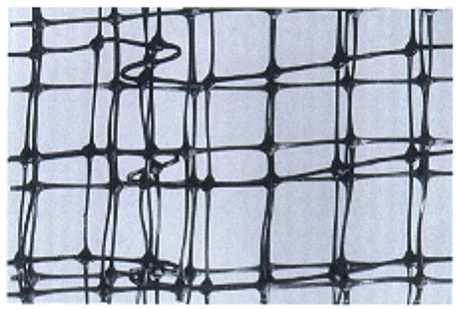
Geogrids feature large openings, and are produced in a variety of shapes and thicknesses. They can be punched sheets or fabricated by welding or weaving extruded strands. Geogrids are commonly used for embankment reinforcement and erosion control.

Silt Fence



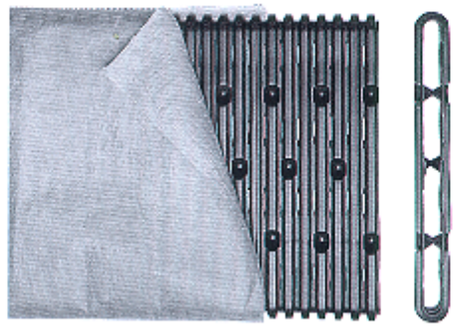
Used to contain sediment runoff, silt fence is offered in 100-foot rolls with pre-assembled hardwood stakes. Users can specify fabric type and width, stake size and spacing, and optional tensioning cords or plastic net backing.

Erosion Control Mats



ADS erosion control mats provide effective protection for slopes with existing vegetation or newly seeded soil. This three-layer netting matrix has the flexibility needed to keep in contact with the soil, and the high modulus and low elongation to reduce deformation and hold vegetation firmly in place.

Geocomposites



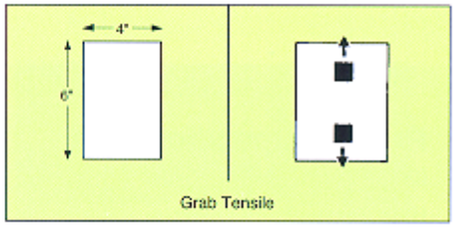
ADS AdvanEDGE® is a drainage composite consisting of a high density polyethylene panel-shaped core surrounded by a soil filtering geotextile. The fabric becomes a structural element and outer boundary, and thus must have a high tensile modulus and resistance to puncture.

Pipe Wrap

These fabrics are installed around perforated drainage pipe to prevent fine soil particles from entering and eventually clogging the pipe. ADS Drain Guard® is a lightweight nylon wrap designed for normal handling conditions. ADS Sock™ is a seamless machine-knitted polyester sleeve that stretches to fit snugly over the pipe and provide extra protection against rough handling.

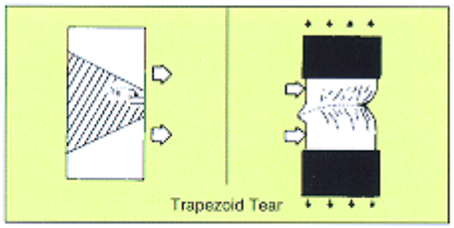
Standard Test Methods

Breaking Load and Elongation of Geotextiles (Grab Method)



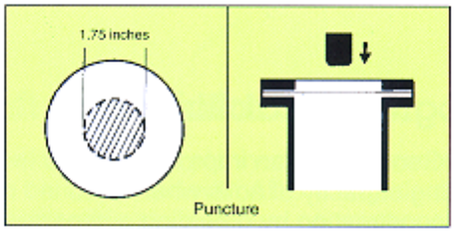
ASTM D 4632-91
Determines the breaking load (grab tensile) and elongation (grab elongation) of geotextile fabrics using the grab method.

Trapezoid Tearing Strength of Geotextiles



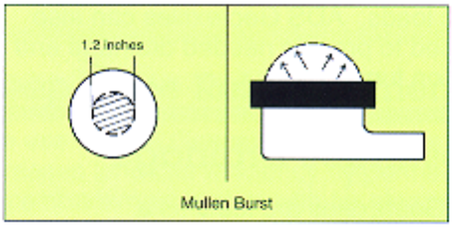
ASTM D 4533-91
Measures the tearing strength of woven or nonwoven geotextiles by the trapezoid method.

Puncture Strength of Geotextiles



ASTM D 4833-88
Measures the puncture strength of geotextiles using a 5/16" diameter rod.

Hydraulic Bursting Strength of Fabrics (Mullen Burst)



ASTM D 3786-87
Determines the resistance of geotextiles to bursting using the Hydraulic Diaphragm Bursting Tester.

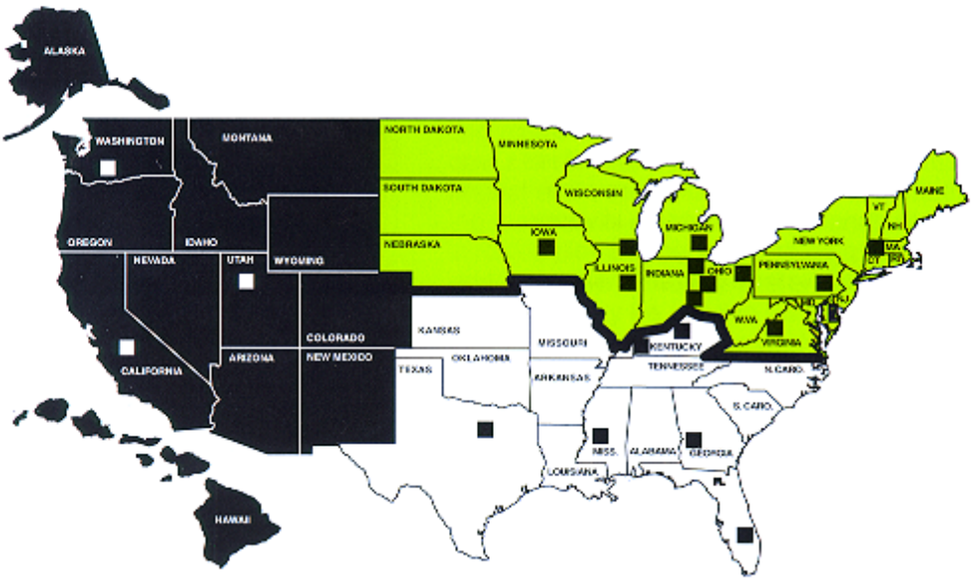
Tensile Properties of Geotextiles (Wide-Width Strip Method)
ASTM D 4595-86
Measures tensile properties of geotextiles using a wide-width strip speciman tensile method, primarily for reinforcement applications.

Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water
ASTM D 4355-92
Determines the deterioration in tensile strength of geotextiles by exposure to ultraviolet light and water.

Apparent Opening Size of Geotextiles
ASTM D 4751-87
Measures the apparent opening size of a geotextile by sieving various sized glass beads through it.

Water Permeability of Geotextiles by Permittivity
ASTM D 4491-92
Determines the hydraulic conductivity (water permeability) of geotextiles in terms of permittivity under standard testing conditions in the uncompressed state.

ADS Sales and Service Locations



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