



[CLICK TO VIEW](#)

[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table
& Chart 5](#)

[Sample Profile, Table &
Forecast 6](#)

[Order Form & Corporate
Use License 7](#)

[About Freedonia,
Custom Research,
Related Studies, 8](#)

Geosynthetics

US Industry Study with Forecasts for **2015 & 2020**

Study #2744 | May 2011 | \$4900 | 280 pages

www.freedoniagroup.com



The Freedonia Group

767 Beta Drive

Cleveland, OH • 44143-2326 • USA

Toll Free US Tel: 800.927.5900 or +1 440.684.9600

Fax: +1 440.646.0484

E-mail: info@freedoniagroup.com

Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Macroeconomic Environment.....	4
Demographics.....	8
Construction Trends.....	12
Construction Expenditures	13
Residential Construction	
Expenditures	16
Housing Starts	18
Housing Stock.....	22
Nonresidential Construction	
Expenditures	25
Improvements & Repairs.....	28
Nonresidential Building Stock...	29
Nonbuilding Construction	
Expenditures	32
Nonbuilding Construction Stock...	33
Highway Spending	34
Agricultural Trends	36
Waste Stream Overview	40
Environmental & Regulatory Issues .	44
Pricing Trends	47
Foreign Trade	49
Imports	51
Exports.....	53
World Market.....	55
North America.....	56
Western Europe.....	57
Asia/Pacific.....	58
Other Regions.....	59

PRODUCTS

General	60
Area Demand.....	61
Value Demand.....	63
Geotextiles	67
Demand by Type.....	69
Nonwovens	70
Product Characteristics.....	74
Producers.....	74
Wovens & Knits	74
Product Characteristics.....	77

Producers.....	78
Demand by Market.....	79
Product Characteristics.....	79
Geomembranes	81
Demand by Market.....	83
Product Characteristics.....	85
Polyethylene Materials.....	86
All Other Materials	87
Producers.....	89
Geogrids.....	89
Demand by Market.....	91
Product Characteristics.....	92
Producers.....	93
Geonets.....	94
Other Geosynthetics	96
Geosynthetic Clay Liners.....	98
Demand by Market	99
Product Characteristics	100
Preformed Geocomposites.....	100
All Other.....	102
Geocells	103
Geofoams	104
Miscellaneous Geosynthetics...	105
Geosynthetics Demand by Material	106

MARKETS

General	110
Area Demand by Market.....	111
Value Demand by Market	114
Construction	117
Demand by Product.....	119
Market Characteristics	121
Stabilization & Reinforcement	121
Drainage & Filtration.....	122
Erosion/Sedimentation Control	123
Transportation Infrastructure	125
Demand by Product.....	127
Market Characteristics	129
Landfills	131
Demand by Product.....	133
Market Characteristics	135
Liquid Containment.....	136
Demand by Product.....	137
Market Characteristics	139
Other Markets.....	140
Demand by Product.....	141
Market Characteristics	142

REGIONS

General	144
Regional Demographics	
& Economic Trends	145
Population Patterns	145
Economic Outlook.....	148
Construction Activity	150
Geosynthetics Demand by Region .	152
Northeast.....	156
New England.....	158
Middle Atlantic.....	159
Midwest.....	160
East North Central.....	163
West North Central.....	164
South	165
South Atlantic.....	169
East South Central	170
West South Central.....	171
West.....	172
Mountain.....	176
Pacific	177

INDUSTRY STRUCTURE

General	179
Industry Composition	180
Market Share	183
Competitive Strategies.....	187
Research & Development.....	189
Marketing	190
Distribution	192
Mergers & Acquisitions.....	194
Cooperative Agreements.....	195

COMPANY PROFILES

ADS Incorporated.....	199
Agro America.....	201
AMCOL International.....	203
Belton Industries	206
Bridgestone Corporation.....	208
Carthage Mills Erosion Control.....	210
CONTECH Construction Products....	212
Cooley Group.....	214
Dow Chemical.....	216
DuPont (EI) de Nemours.....	217

Table of Contents

COMPANY PROFILES

(continued from previous page)

Environmental Fabrics.....	219
Environmental Protection	220
Fiberweb plc	222
GSE Lining Technology.....	225
Hallaton Incorporated	228
HUESKER Synthetic.....	229
In-Line Plastics	231
Inteplast Group	232
Leggett & Platt.....	233
Low & Bonar	235
LyondellBasell Industries.....	237
Mannington Mills	238
NAUE GmbH	240
Nilex Incorporated	242
Plastatech Engineering	244
Poly-America LP.....	245
Propex Operating	247
Raven Industries.....	249
Reef Industries	251
Reynolds Group.....	253
Royal Ten Cate.....	255
Saint-Gobain	259
SKAPS Industries	261
Solmax International	262
Soprema SA.....	264
Strata Systems.....	265
TENAX International	267
Tensar Corporation	269
Thrace Plastics	273
Watersaver Company.....	275
Additional Companies	277

List of Tables/Charts

EXECUTIVE SUMMARY

1 Summary Table	3
-----------------------	---

MARKET ENVIRONMENT

1 Macroeconomic Indicators.....	8
2 Population & Households	12

3 Construction Expenditures.....	15
4 Residential Building Construction Expenditures	18
5 Housing Starts	22
6 Housing Stock by Type.....	24
Cht Year of Construction of Housing Stock, 2010	25
7 Nonresidential Building Construction Expenditures	28
8 Nonresidential Building Improvement & Repair Expenditures	29
9 Nonresidential Building Stock...	31
10 Nonbuilding Construction Expenditures	33
11 Nonbuilding Construction Stock	34
12 Highway Spending by Type.....	36
13 Agricultural Indicators.....	40
14 Municipal Solid Waste Generation, Recovery & Disposal	44
15 Geosynthetics Pricing	49
16 Geosynthetics Foreign Trade	51
Cht World Geosynthetics Demand, 2010	56

PRODUCTS

1 Geosynthetics Area Demand by Product	63
2 Geosynthetics Value Demand by Product	65
Cht Geosynthetics Demand: Area Versus Value, 2010	66
3 Geotextile Demand by Type	70
4 Nonwoven Geotextile Demand...	73
5 Woven & Knit Geotextile Demand.....	77
6 Geomembrane Demand.....	83
7 Geogrid Demand	91
8 Geonet Demand	96
9 Other Geosynthetics Demand	98
10 Geosynthetics Demand by Material.....	108
Cht Geosynthetics Demand by Material, 2010.....	109

MARKETS

1 Geosynthetics Area Demand by Market.....	113
Cht Geosynthetics Area Demand by Market, 2010.....	113
2 Geosynthetics Value Demand by Market.....	116
Cht Geosynthetics Value Demand by Market, 2010.....	116
3 Construction Geosynthetics Demand.....	118
4 Transportation Infrastructure Geosynthetics Demand	127
5 Landfill Geosynthetics Demand.....	132
6 Liquid Containment Geosynthetics Demand	137
7 Other Markets Geosynthetics Demand.....	141

REGIONS

1 Population by Region	147
2 Gross Domestic Product by Region	150
3 Construction Expenditures by Region	152
4 Geosynthetics Demand by Region	155
Cht Geosynthetics Demand by Region, 2010	155
5 Northeast Geosynthetics Demand.....	158
6 Midwest Geosynthetics Demand.....	163
7 South Geosynthetics Demand..	168
8 West Geosynthetics Demand ...	176

INDUSTRY STRUCTURE

1 US Geosynthetics Sales by Company, 2010.....	182
Cht US Geosynthetics Market Share by Company, 2010.....	184
2 Selected Acquisitions & Divestitures	195
3 Selected Cooperative	

[Click here to purchase online](#)

Gains will be driven by a projected recovery in construction spending from a reduced 2010 base and by increased spending on transportation infrastructure.

US demand to rise 6.8% annually through 2015

Demand for geosynthetics in the US is projected to advance 6.8 percent annually to 1.3 billion square yards in 2015, valued at \$3.1 billion. This growth rate is a healthy rebound over the decrease posted between 2005 and 2010, when sales of geosynthetics were restrained by the recession that occurred in the latter half of that period. Gains will be driven by a projected recovery in construction spending from a reduced 2010 base and by increased spending on transportation infrastructure. Geosynthetics can be used to improve the lifespan of roads and other structures by stabilizing foundations, promoting drainage and filtration, and separating dissimilar solid materials, generally at a lower cost than alternative products. Additionally, environmental concerns will continue to generate demand for geosynthetics in such increasingly popular projects as methane recovery systems and green roofs.

Growth prospects remain bright for geotextiles

In 2010, geotextiles accounted for 70 percent of area demand, as their versatility makes them appropriate for a wide range of applications. Growth prospects for geotextiles remain bright, as they are the most frequently used geosynthetic in both the construction and transportation infrastructure markets -- the two markets in which demand for geosynthetics

US Geosynthetics Demand, 2010 (904 million square yards)



Nonwoven
Geotextiles
55%

Woven/Knit
Geotextiles
15%

Geomembranes
12%

Other
Geosynthetics
18%

photo: Clean Air & Water Systems LLC

is forecast to advance most rapidly. Geonets, which are used primarily as components of drainage systems, are expected to achieve the fastest gains in area demand, albeit from a reduced 2010 base. The rebound in construction spending and increased recognition of the performance advantages of geonets, such as chemical resistance and ease of installation, will boost gains. In value terms, geomembranes, which are significantly more expensive per square yard than other types of geosynthetics, accounted for the greatest share of the market, comprising nearly half in 2010. Geomembranes will continue to hold the leading share of value demand in 2015. However, nonwoven geotextiles will experience the most rapid value gains.

Transportation infrastructure to remain top market

The transportation infrastructure market was the largest market for geosynthetics in 2010, accounting for one-third of total area demand. Historically, construction has been the largest market for geosynthetics; however, the effects of the 2007-2009 recession were particularly strong in the construction market. The transportation infrastructure market will remain the largest market for geosynthetics in 2015, benefiting from the allocation of funds from the American Recovery and Reinvestment Act of 2009. However, demand for geosynthetics will grow most rapidly in the rebounding construction market.

Copyright 2011 The Freedonia Group, Inc.

[Click here to purchase online](#)

Sample Text, Table & Chart

MARKETS

Demand by Product

Geotextiles accounted for 58 percent of geosynthetics used in the landfill market in 2010. Geotextiles are used in a variety of uses, such as a cushion to increase the ability of a geomembrane to resist puncture and abrasion, as a daily cover for landfills, and as a component of fluid and gas collection systems. In 2010, geotextiles accounted for 77 percent of total geotextile demand. Woven geotextiles account for the majority of geotextile demand due to their greater filtration and drainage capabilities. These are often used in leachate collection systems; and they can also be used to permit the release of gases or vapors that would otherwise be trapped in landfills, thus preventing explosions or other harmful effects. Geotextiles are mainly used as reinforcements for geomembranes.

Through 2015, demand for geotextiles in the landfill market is projected to reach 1.5 billion square yards. Growth will be driven by the increasing incorporation of geotextiles in leachate collection systems and the growing use of geotextiles as alternative daily covers. Geotextiles take up less landfill space than procured daily covers, and they are more durable. This allows landfills to accept a larger volume of waste. Technological improvements will also drive demand for geotextiles in the landfill market. For instance, the use of geotextiles as components of a bio-tarp that contains embedded methanotrophs -- bacteria that metabolize methane -- has been tested as a potential means of reducing the amount of methane released from open landfills. The development of this technology into a commercially-available product would contribute to demand for geotextiles, as regulations increasingly require reduction of landfill methane emissions.

Geomembranes, which accounted for 25 percent of area covered in 2010, are primarily used as liner materials for solid waste disposal.

SAMPLE TEXT

TABLE V-7

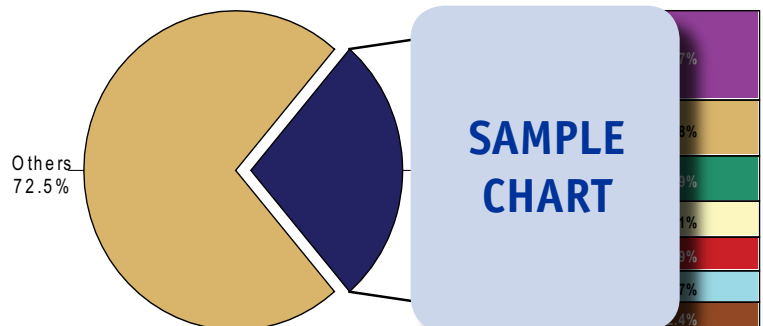
SOUTH GEOSYNTHETICS DEMAND
(million square yards)

Item	2000	2005	2010	2015	2020
South Construction (bil 2005\$)	3.5	3.5	3.5	3.5	3.5
sq yd geosynthetic/000\$ construction	1.6	1.6	1.6	1.6	1.6
South Geosynthetics Demand	5.1	5.1	5.1	5.1	5.1
By Subregion:					
South Atlantic	0.9	0.9	0.9	0.9	0.9
East South Central	0.3	0.3	0.3	0.3	0.3
West South Central	0.3	0.3	0.3	0.3	0.3
By Market:					
Transportation Infrastructure	0.3	0.3	0.3	0.3	0.3
Construction	0.7	0.7	0.7	0.7	0.7
Landfills	0.9	0.9	0.9	0.9	0.9
Liquid Containment	0.8	0.8	0.8	0.8	0.8
Other Markets	0.8	0.8	0.8	0.8	0.8
% South Geosynthetics Demand	12.5	11.1	10.4	12.5	13.90

SAMPLE TABLE

CHART VI-1

US GEOSYNTHETICS MARKET SHARE BY COMPANY
(\$.2.1 billion, 2010)

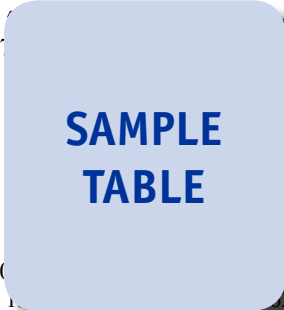


SAMPLE CHART

Sample Profile, Table & Forecast

TABLE III-4
NONWOVEN GEOTEXTILE DEMAND
 (million square yards)

Item	2000	2005	2010	2015	2020
Geotextile Demand					46
% nonwoven					5
Nonwoven Geotextile Demand					22
Transportation Infrastructure					31
Construction					3
Landfills					22
Other Markets					16
\$/sq yd					58
Nonwoven Geotextile Demand (mil \$)					25



COMPANY PROFILES

Cooley Group Holdings

50 Esten Avenue
 Pawtucket, RI 02860
 401-724-9000
<http://www.cooleygroup.com>

Annual Sales
 Employment

Key Products



Cooley Group Holdings, polymer-coated fabrics, engineered membranes, geotextiles, geogrids, geocomposites, geotextiles, geogrids, geocomposites. The Company, through its subsidiaries, operates through Cooley Engineered Membranes, Cooley Building Products, Cooley Digital Products, Cooley Sign and Awning Products, and Cooley Specialty Products.

The Company participates in the US geosynthetics industry through the Cooley Engineered Membranes segment (Pawtucket, Rhode Island), which makes and markets geomembranes under COOLSHIELD, COOLGUARD, COOLPRO and COOLTHANE brand names. COOLSHIELD geomembranes are produced from thermoplastic polymers and can be used in temperatures of up to 250 degrees Fahrenheit. These geomembranes, which feature tensile and tear strength, are designed to resist chemicals, abrasions and punctures. Cooley Group's COOLSHIELD geomembranes are suitable for the tubing, venting, ducting and containment of acids, solvents and fuels.

COOLGUARD geomembranes from the Company are produced by bonding ELVALOY (DuPont) ketone ethylene ether resins and other

“Value demand for nonwoven geotextiles is projected to advance 11.7 percent per year to \$408 million in 2015. The sharp increase in value demand is due mostly to an acceleration in volume growth. In value terms, gains will also stem in part from the continued increase in the cost of polypropylene resins, the polymer resin from which the majority of nonwoven geotextiles are made. Through the forecast period, value gains will be restrained by ...”
 --Section III, pg. 73

ORDER INFORMATION

Five Convenient Ways to Order

INDUSTRY MARKET RESEARCH FOR BUSINESS LEADERS, STRATEGISTS, DECISION MAKERS



ONLINE: www.freedoniagroup.com

MAIL: Print out and complete the order form and send to The Freedonia Group (see address at the bottom of this form)

PHONE: Call toll free, 800.927.5900 (US) or + 1 440.684.9600

FAX: + 1 440.646.0484 (US)

EMAIL: info@freedoniagroup.com

Free Handling & Shipping

There is NO charge for handling or UPS shipping in the US. Expect delivery in 3 to 5 business days. Outside the US, Freedonia provides free airmail service. Express delivery is available at cost.

Orders Outside of the US

Checks must be made payable in US funds, drawn against a US bank and mailed directly to The Freedonia Group. For wire transfers please contact our customer service department at info@freedoniagroup.com. Credit cards accepted.

Credit Card Orders

For convenience, Freedonia accepts American Express, MasterCard or Visa. Credit card purchases must include account number, expiration date and authorized signature.

Save 15%

If you order three (3) different titles at the same time, you can receive a 15% discount. If your order is accompanied by a check or wire transfer, you may take a 5% cash discount (discounts do not apply to Corporate Use Licenses).

Corporate Use License

Now every decision maker in your organization can act on the key intelligence found in all Freedonia studies. For an additional \$2600, companies receive unlimited use of an electronic version (PDF) of the study. Place it on your intranet, e-mail it to coworkers around the world, or print it as many times as you like,

[Click here to learn more about the Corporate Use License](#)

ORDER FORM

F-WEB.-2744

Geosynthetics..... \$4900

Corporate Use License (add to study price) * + \$2600

___ Additional Print Copies @ \$600 each *
Total (including selected option) \$_____

Enclosed is my check (5% discount) drawn on a US bank and payable to The Freedonia Group, Inc., in US funds (Ohio residents add 7.75% sales tax)

Bill my company American Express MasterCard Visa

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Credit Card #

MM		YY	

Expiration Date

Signature _____

Name _____

Title _____

Company _____

Division _____

Street _____
(No PO Box please)

City/State/Zip _____

Country _____

Phone _____ Fax _____

Email _____

* Please check appropriate option and sign below to order an electronic version of the study.

Corporate Use License Agreement

The above captioned study may be stored on the company's intranet or shared directory, available to company employees. Copies of the study may be made, but the undersigned represents that distribution of the study will be limited to employees of the company.

Signature _____

Individual Use License Agreement

The undersigned hereby represents that the above captioned study will be used by only ___ individual(s) who are employees of the company and that the study will not be loaded on a network for multiple users. In the event that usage of the study changes, the Company will promptly notify Freedonia of such change and will pay to Freedonia the appropriate fee based on Freedonia's standard fee schedule then in effect. Note: Entire company corporate use license, add \$2600; one additional user, add \$600; two additional users, add \$1200; three additional users, add \$1800.

Signature _____

The Freedonia Group, Inc. 767 Beta Drive • Cleveland, OH • 44143-2326 • USA • Web site: www.freedoniagroup.com
Tel US: 800.927.5900 or + 1 440.684.9600 • Fax: + 1 440.646.0484 • e-mail: info@freedoniagroup.com

OTHER STUDIES

Landscaping Products

This study analyzes the US landscaping product industry. It presents historical demand data (2000, 2005, 2010) and forecasts for 2015 and 2020 by product (e.g., water features, lighting, bird and wild animal products, pots and planters, hardscape, sheds, gazebos, arches, trellises and pergolas, hobby greenhouses, bridges), market (residential, nonresidential, nonbuilding), end use (consumer/DIY, professional) and US region. The study also considers market environment factors, evaluates company market share and profiles industry players.
 #2747 June 2011 \$4900

Precast Concrete Products

US demand for precast concrete products is forecast to rise 6.1 percent annually through 2015. Residential building will be the fastest growing market, led by foundations, basement walls and floors. Architectural components will be the fastest growing products, spurred by decorative facades, door and window surrounds and siding. This study analyzes the \$8.4 billion US precast concrete products industry, with forecasts for 2015 and 2020 by product, market and region. The study also evaluates company market share and profiles 34 industry competitors.
 #2746 March 2011..... \$4800

World Roofing

Global roofing demand will grow 3.1 percent annually through 2014. China alone will claim over a third of all new demand, strengthening its position as the largest roofing market in square meter terms. Concrete tile will be the fastest growing type based on dominance in developing Asian nations. This study analyzes the 9.5 billion square meter world roofing industry, with forecasts for 2014 and 2019 by product, market, world region and for 56 countries. It also evaluates company market share and profiles industry participants.
 #2656 July 2010..... \$6100

Nonwovens

Demand for nonwoven roll goods in the US is projected to rise 3.7 percent annually through 2013. Among disposable nonwovens, consumer items will continue to claim the most sales while the filtration market grows the fastest. Within the nondisposables segment, construction will remain the largest market and grow the fastest. This study analyzes the \$5.2 billion US nonwoven fabric industry, with forecasts for 2013 and 2018 by material, product and market. It also evaluates market share and profiles industry players.
 #2559 November 2009 \$4900

World Geosynthetics

Global demand for geosynthetics is projected to increase 5.3 percent annually through 2013. China will account for the largest share of new global demand as it continues to develop large-scale infrastructure and erosion control projects. North America will remain the second largest regional market. Geogrids will achieve the fastest gains. This study analyzes the 3.7 billion square meter world geosynthetics industry, with forecasts for 2013 and 2018 by type and market. It also evaluates company market share and profiles industry players.
 #2512 July 2009..... \$5600

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

- Chemicals • Plastics • Life Sciences • Packaging • Building Materials • Security & Electronics • Industrial Components & Equipment • Automotive & Transportation Equipment • Household Goods • Energy/Power Equipment

[Click here to learn more about Freedonia](#)

Freedonia Custom Research

Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

Freedonia Custom Research is ideal for companies seeking to make a strategic difference in the status quo and focus on future business growth. Working side by side with clients, Freedonia's team is able to define a research project that is custom-tailored to answer specific questions and provide the basis from which a company can make informed business decisions.

[Click here to learn more about Custom Research](#)



[Click here for complete title list](#)



[Click here to visit freedoniagroup.com](http://www.freedoniagroup.com)