

Reinforced Plastics

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Hundreds of private companies are active in the U.S. reinforced plastics industry.

Reinforced Plastics - Private Companies Report profiles more than 140 private U.S. producers of reinforced plastics. This information will assist you as a valuable decision making tool for acquisitions, joint ventures and cooperative agreements.

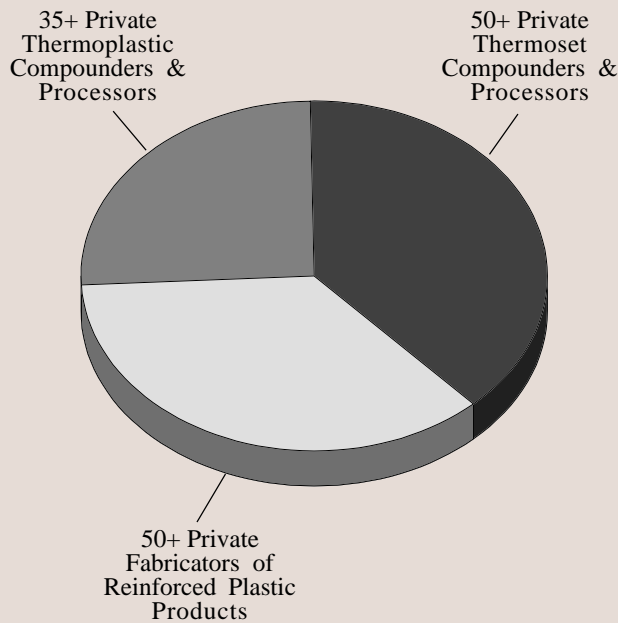
Examine the report highlights, sample pages and table of contents on the following pages and see how *Reinforced Plastics - Private Companies Report* can serve as a valuable decision making tool for your company.

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List of Contents, Tables and Charts

This new report profiles more than 140 privately-held reinforced plastics companies and encompasses compounders and processors of thermoset and thermoplastic reinforced with glass, carbon, aramid, boron and other fiber materials. Firms which compound and/or process reinforced plastics for use in their own products or components are also included.



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IV. PRIVATE COMPANY PROFILES 50-238

Companies Profiled

** Sample profiles
on pages 4 and 5*

Accurate Plastics Incorporated
Adell Plastics Incorporated
The Advanced Composites Group Inc.
Advanced Fiber Products
Albis North America
Alloy Polymers Incorporated
Amalga Composites Incorporated
Amco Plastic Materials Incorporated
American Acrylic Corporation
American Polymers Incorporated
American Technologies & Research Ind.
Anholt Technologies Incorporated
Arrowhead Plastic Engineering
Ashley Polymers Incorporated
Aurora Flight Sciences of West Virginia Inc.
Axson North America Incorporated
BC Composites
Bedford Reinforced Plastics Incorporated
Bohn Fiberglass Industries Incorporated
Burnham Products Incorporated
Caine Corporation
Cambridge Industries
Centek Industries Incorporated
Certified Thermoplastics Company Inc.
Champion Fiberglass
C-K Composites
Comfort Line Incorporated
 American Pultrusions Incorporated
Complastik Corporation
Composiflex Incorporated
Composite Engineering Incorporated
Composite Optics Incorporated
Composite Process Equipment Inc.
Composite Solutions
Composite Structures LC
Cortech Plastics Incorporated
Creative Pultrusions Incorporated
CTL Aerospace Incorporated
Danner Corporation
Dasco Pro Incorporated
DFI Pultruded Composites Incorporated
Dimco-Gray Company
Ebert Composites Corporation
Elm Industries Incorporated
Enduro Systems Incorporated
Fiber Innovations Incorporated
Fiberflex Incorporated

Fiberset Incorporated
Fibertech Incorporated
Foster Corporation
FRC Component Products
General Plastics & Rubber Company Inc.
Gill (MC) Corporation
GI Plastek Incorporated
Glasforms Incorporated
Goetz Marine Technology
Goldsworthy and Associates
Gordon Composites Incorporated
Grand Rapids Plastics Incorporated
Hadlock Plastics Corporation
Hanlon Industries Incorporated
Hartzell Propeller Incorporated
Hasbrouck Plastics Incorporated
Hastings Plastic Company
Haysite Reinforced Plastics
Hitech Polymers Incorporated
Hughes Brothers Incorporated
HyComp Incorporated
ICL Engineering Limited
Insulfab Plastics Incorporated
International Grating Incorporated
International Polymers Corporation
Interplastic Corporation
Iten Industries Incorporated
Janco Products Incorporated
J-Von NA LLC
Kaiser Compositek Incorporated
Kasha Industries Incorporated
Lawrie Technology Incorporated
MacLean-Fogg Company
 Precision Fiberglass Industries
Mar-Bal Incorporated
Marvin Lumber & Cedar Company
The Matrixx Group Incorporated
 Replas Incorporated
McCann Plastics Incorporated
McClarín Plastics Incorporated
Miller (J.) Industries Incorporated
Miniature Precision Components Inc.
Molded Fiber Glass Companies
 Molded Fiber Glass Tray Company
Montsinger Technologies Incorporated
MRC Polymers Incorporated
Muehlstein (H.) and Company Inc.
Network Polymers Incorporated
 Diamond Polymers Incorporated
New Age Industries
The NORDAM Group Incorporated
NUPLA Corporation
NVF Company
Omega Polymer Technologies Incorporated
 Carsonite
 Viking Plastics
Omniglass Limited
Osterman & Company
 Engineered Polymers Industries
 Fiber Concepts Incorporated
Outboard Marine Corporation

Chris-Craft Industries Incorporated
Four Winns Incorporated
Hydra-Sports Corporation
Stratos Boats Incorporated
Parkway Products Incorporated
perSPEC Engineered Plastics
Plastic Engineered Products Inc.
Plastic Fabricating Company
Plastics Engineering Company (Plenco)
The Plastics Group of America
 Polifil
Plastigage Corporation
Polygon Company
Polymer Resources Limited
Polyply Composites Incorporated
Premix Incorporated
 Quantum Composites Incorporated
Production Products Incorporated
PTA Corporation
PUPI Enterprises LLC
RCO Engineering Incorporated
Resinoid Engineering Corporation
RheTech Incorporated
RP Engineering Incorporated
RTP Company
Seasafe Incorporated
Seymour Manufacturing Company Inc.
 Structron Corporation
SPARTA Incorporated
Spaulding Composites Company Inc.
Specmat Technologies Incorporated
Stevens Products Incorporated
Strongwell (formerly Morrison)
Structural Composites Incorporated
Sunrez Corporation
Superior Fibers Incorporated
Synthetic Rubber Technologies Inc.
TEEL Plastics Incorporated
Tessy Plastics Corporation
TP Composites Incorporated
TPI Composites Incorporated
TPM2 Incorporated
 Thermoplastic Pultrusions Inc.
Valley Plastic Molding Company
 Boonton Plastic Molding
Buckeye Polymers Incorporated
Venture Holdings Trust
Vermont Composites Incorporated
Washington Penn Plastic Company Inc.
Werner Company
Westlake Plastics Company
World Class Plastics Incorporated
Xerxes Corporation
 Heil Process Equipment
 Proform Company
Zehrco Plastics Incorporated

Detailed Company Profile

More than 140 private company profiles are compiled and range from detailed to brief company descriptions. (See Samples)

All companies are individually contacted and the majority of the companies verify the data.

Hard to obtain sales and employment figures, key products and services and an overview of corporate operations are provided.

PRIVATE COMPANY PROFILES

Strongwell

400 Commonwealth Avenue
Bristol, VA 24203
County: Bristol
County Code: 51520

Phone: 540-645-8000
Fax: 540-645-8132
Web Address: <http://www.strongwell.com>

Annual Sales: **SAMPLE PROFILE**
Employment:
Key Executive:

Key Products: fiberglass-reinforced thermoset plastic structural shapes and components, pultrusion machinery and polymer concrete

Census Code SIC(s): 3082; 3086; 3089; 3559

SIC Description(s): unsupported plastic profile shapes; plastic foam products; miscellaneous plastic products; miscellaneous special industry machinery

Strongwell, formerly known as Morrison Molded Fiber Glass Company, pultrudes reinforced thermoset plastics and fabricates structures utilizing pultruded thermoset components. The Company's product range includes fiberglass-reinforced structural shapes and components, pultrusion machinery and polymer concrete. Strongwell operates through four divisions: Bristol (Bristol, Virginia), Chatfield (Chatfield, Minnesota), Lenoir City (Lenoir City, Tennessee) and San Jose (San Jose, California). The Lenoir City and San Jose locations, formerly the two facilities of the Quazite division, manufacture polymer concrete products marketed under the QUAZITE, POLYCAST, POLY-BLOK and STAFORM brand names. Additionally, Strongwell operates a joint venture called Strongwell-Ebert

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constructed of isophthalic polyester resins; series 525 EXTREN materials feature fire retardant isophthalic polyester resin systems with an ultraviolet (UV) inhibitor; and series 625 products are vinyl ester resin materials that are both fire retardant and highly corrosion resistant.

SAFPLATE fiberglass gritted plate is a tough, corrosion- and slip-resistant floor

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(continued)

PROFILES

acts

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Brief Company Profile

These profiles give you insight into the operations of private companies, and can help you:

- Identify companies for investment, merger, and/or acquisition opportunities based on size, products, and location.
- Evaluate the position of your competitors based on sales and/or employment figures.

PRIVATE COMPANY PROFILES

Bedford Reinforced Plastics Incorporated

264 Reynoldsdale Road

Bedford, PA 15522

County: Bedford

County Code: 42009

Phone: 814-623-8125

Fax: 814-623-6032

Web Address: <http://www.bedfordplastics.com>

Annual Sales:

SAMPLE PROFILE

Employment:

Key Executive:

PRIVATE COMPANY PROFILES

RP Engineering Incorporated

109 Main Street

Morton, PA 19070

County: Delaware

County Code: 42045

Phone: 610-544-7577

Fax: 610-544-3995

Annual Sales:

SAMPLE PROFILE

Employment:

Key Executive:

Key Products: custom molding, engineering, design and manufacture of reinforced plastics and fiberglass products

Census Code SIC(s): 3083; 3089

SIC Description(s): laminated plastic plate, sheet and profile shapes; miscellaneous plastic products

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...ding profiles, tubes and rods

...ofile shapes; miscellaneous plastic

...reinforced pultruded plastic parts
...ompany's products are pultruded
...sins with glass fiber reinforcements,
...s used. Bedford serves a variety of
...control, civil infrastructure, construc-
...nt equipment, electrical/electronic
...ransportation and wastewater treat-
...re feet of production space with twelve
...lvania facility. A 12,000-square-foot
...jacent to the manufacturing plant.

Market Overview

The Market Overview Section discusses factors influencing demand, including construction trends and the outlook for motor vehicles.

This information helps you:

- Determine what external factors will impact future demand.
- Measure your market and sales potential based on demand forecasts.
- Propose new areas for product development based on market trends & innovations.

MARKET OVERVIEW

Reinforced Thermosets

Reinforced thermosets demand will increase by 1.5 billion pounds in 2003, with the dollar value rising by \$1.2 billion. Gains will be driven by cost and performance improvements in motor vehicle and marine markets. Reinforced thermosets are the fastest selling type of reinforced plastics due to a number of performance and cost advantages over thermoplastics. These characteristics include lower cost, greater diversity of applications and high temperature capabilities. However, because thermosets cannot be resoftened by heat once they are fully cured, they are not easily recycled.

Thermoset polyester is the dominant resin used in reinforced thermoset plastics, largely due to its low cost and application flexibility. Other reinforced thermoset plastics, which are used in significantly lower volumes, include epoxies, phenolics, silicones and melamines. Demand for reinforced epoxies, however, is growing at a faster rate, although from a much smaller base, than reinforced polyester. Reinforced thermoset polyester is still dominant over other reinforced plastics in many markets, particularly construction, marine and aerospace. Overall, reinforced thermoset plastics will see their fastest gains in the motor vehicle and

SAMPLE PAGE

FACTORS AFFECTING REINFORCED THERMOSETS DEMAND BY RESIN

Resin	Factors Driving Demand	Factors Restraining Demand
Polyester	<p>Continued displacement of competitive materials such as aluminum and wood.</p> <p>Low cost and good weather, heat and corrosion resistance, and good strength-to-weight ratio.</p> <p>Increased demand in key application markets: construction, automotive and marine.</p>	<p>Competition from reinforced thermoplastic resins.</p> <p>Market saturation in consumer durables.</p>
Epoxy	<p>Continued displacement of competitive materials such as aluminum and steel.</p> <p>Good thermal and electrical properties, excellent chemical and corrosion resistance, dimensional stability, excellent fiber adhesion and low shrinkage.</p> <p>Continued expansion of leading applications such as electronic laminates and aerospace products.</p>	<p>Competition from thermoset polyester.</p> <p>Market saturation in construction applications such as storage tanks and pipes.</p>

(continued)

Industry Structure

Gain a better understanding of your competition and analyze your company's position in the industry with information about the characteristics of leading reinforced plastics manufacturers including total sales, capabilities and regional concentration.

This information helps you:

- Evaluate diversification opportunities based on product lines of other private companies.
- Understand barriers to entry based on industry concentration.
- Develop positioning strategies based on size of competitors.

INDUSTRY STRUCTURE

Reinforced Thermoplastic Compounders & Processors

While demand for reinforced thermoplastics trails that of reinforced thermosets, this segment is expected to grow through 2003. Reinforced thermoplastic resins include polypropylene, nylon, styrenics, polycarbonate and polyethylene. Common reinforcements include glass, carbon, aramid and boron fibers. A variety of private companies participate as reinforced thermoplastic compounders and processors, ranging from smaller single location processors to large, diversified product or component manufacturers. For example, Centek, with an estimated \$5 million in annual sales, specializes in the production of fiberglass-reinforced acrylonitrile butadiene styrene wet marine exhaust mufflers and systems and has some custom processing capabilities for this material. Miniature Precision Components, with \$110 million in annual sales, produces a variety of reinforced thermoplastics at its five plants in the US, Mexico and the United Kingdom for use in its automotive components.

A number of private reinforced thermoplastic compounders also diversify

Selected Private Reinforced Thermoplastic Compounders & Processors Company	Corporate Sales* (mil \$)	Resins						Reinforcement			Processing			
		Nylon	Polycarbonate	Polyester	Polypropylene	Styrenics	Other	Carbon Fiber	Glass Fiber	Other	Filament Winding	Hand/Spray Lay-Up	Molding	Pultrusion
Accurate Plastics	8	•	•		•	•	•	•	•					•
Adell Plastics	30	•			•	•	•	•	•			•		
Albis North America	45	•	•	•	•	•	•	•	•					•
Alloy Polymers	15	•	•	•	•	•	•	•	•					•
Amco Plastic Materials	20	•	•		•	•		•	•					•
American Polymers	55	•	•		•	•	•		•					•
Anholt Technologies	1			•			•	•	•			•	•	•
Arrowhead Plastic	10						•	•	•			•	•	•
Ashley Polymers							•	•	•			•	•	•
Bohn Fiberglass Industries					•		•	•	•		•	•	•	•
Buckeye Polymers					•	•	•	•	•					•
Cambridge Industries					•			•	•			•		•
Centek Industries	5					•		•	•		•	•		•

* Sales are 1998 estimates of total corporate sales including products other than reinforced thermoplastics.

Report Highlights

- Hundreds of private companies participate in the \$4.3 billion reinforced plastics market, primarily as independent and captive compounders and processors, and product fabricators.
- Ten private independent reinforced plastic compounders and processors each have total sales of at least \$50 million.
- Small private companies are able to compete in this industry because of low barriers to entry and opportunities for geographic, customized and other niche marketing.
- Despite the fragmented nature of the reinforced plastics market, private firms face increasing competition due to the inclination among customers toward one-stop-shopping that is driving a vertical integration trend.
- California has the highest concentration of private compounding and processing facilities with more than 150, followed by Texas with over 100.
- U.S. reinforced plastics volume demand is forecast to grow 303 percent annually through 2003 to more than four billion pounds.

About The Freedonia Group

The Freedonia Group, Inc. is a leading international industry report/database company.

Since 1985, Freedonia has published over 1,400 titles covering areas such as building materials, chemicals, plastics, industrial components and equipment, household goods, coatings and adhesives, health care, packaging, security, and many other industries.

Private companies reports encompass not only Freedonia's notable industry forecasts, but also market shares, product information and sales and employment figures for **private companies**. Corporate analysts are constantly monitoring privately-held companies to provide the most up-to-date and comprehensive profiles. Freedonia is able to gather and prepare this proprietary information based on our reputation as a leading market research firm.

By obtaining Freedonia's report on private companies in the reinforced plastics industry, you will be able to:

- **Identify companies for possible investment, merger, and /or acquisition opportunities** based on size, products and location.
- **Measure your market and sales potential** based on demand forecasts.
- **Propose new areas for product development** based on material trends.
- **Develop positioning strategies** based on size and geographic location of competitors.
- **Evaluate diversification opportunities** based on product lines of other private companies.
- **Understand barriers to entry** based on industry concentration and market shares.

Our Customers

Freedonia's clients include major US and international companies in the manufacturing, services, consulting and financial sectors.

Typical purchasers of Freedonia studies :

- Key Executives
- Corporate Planners
- Market Researchers
- Financial Analysts
- Information Centers
- New Product Developers
- Merger & Acquisition Specialists

Since 1985 we have provided research to customers ranging in size from global conglomerates to one person consulting firms. More than 90% of the industrial companies in the Fortune 500 use Freedonia research to help with their strategic planning.

Some of Freedonia's customers in the reinforced plastics industry include: Xerxes Corporation, Ashland Chemical, Owens Corning and PPG.

Because Freedonia is a source for reliable information, our forecasts have been cited in numerous publications such as *The Financial Times*, *The Wall Street Journal* and *Plastics News*.

Related Studies and Reports

For more information about these or other Freedonia titles, please contact us at:

The Freedonia Group, Inc.

Phone: (440) 684-9600

(800) 927-5900

Fax: (440) 646-0484

World Polyethylene

Global demand for polyethylene will grow over 5% annually. Polyethylene will remain the largest volume thermoplastic based on wide use in film, coatings and rigid containers. PE is also gaining new uses at the expense of polystyrene and PVC, which are restricted by law based on solid waste and toxicity issues. This study analyzes the 42 million metric ton world polyethylene industry by type, process, and application for 25 countries. It also presents market share data and profiles key industry participants.

#1138. 7/99. \$4,100

Plastic Film

Growth in demand for plastic film in the US will be driven by performance, cost and environmental advantages, as well as technological advances in metallocene resins. Low density polyethylene will remain the dominant film, although better growth is expected for high density polyethylene and polypropylene. This study analyzes the US plastic film industry to 2002 and 2007 by resin and market. It also discusses market share and profiles key companies.

#1122. 5/99. \$3,500

Reinforced Plastics

The ability of reinforced plastics to displace metal or wood in established uses, or to create new ones, will drive gains in US composites demand. Unsaturated polyester and other thermosets will remain the largest market based on low cost and superior performance in diverse markets. Reinforced thermoplastics will exhibit better growth. This study analyzes the \$4.3 billion US composites industry to 2003 and 2008 by reinforcement, product and market. It also details market share and profiles key companies.

#1113. 4/99. \$3,500

Thermoplastic Compounding - Private Companies Report

Most participants in this \$9 billion industry are small, privately-held firms. Eight private companies have compounding sales of at least \$75 million. Of these, five are primarily compounders while the other three focus mainly on colors and additives. This report profiles over 150 US privately-held independent thermoplastic compounders (e.g., Americhem, Ampacet, PMC Global, RheTech, RTP, Tekni-Plex, Teknor Apex, Washington Penn Plastic). It also forecasts industry demand and presents market share data.

#1090. 2/99. \$3,000

Pultrusion Resins

Pultrusion demand in the US will grow 8% per annum, driven by resin and processing improvements, and greater needs for strong, lightweight, durable materials. Thermoset resins, primarily unsaturated polyester, will remain dominant due to their low cost and excellent performance. Electrical equipment markets will present the best opportunities. This study analyzes the US pultrusion industry to 2002 and 2007 by resin, reinforcement and market. It also presents market share and profiles key companies.

#1080. 1/99. \$3,400

World Polypropylene

World demand for polypropylene (PP) will grow nearly 6% annually. PP is nontoxic and easily recyclable, and can mimic the properties of engineering resins at a lower cost. Many of PP's new applications are coming at the expense of polystyrene and polyvinyl chloride. Fiber and consumer goods markets will offer the best PP opportunities. This study examines the world PP industry to 2002 and 2007 by market, region and 25 individual countries. It also presents market share and profiles key industry participants.

#1038. 10/98. \$3,900

Injection Molded Plastics - Private Companies Report

Private companies roles in this US industry are characterized by local and regional firms serving limited market ranges and located near end users. Three of the top ten custom molders are privately held and hold a combined 10% share of the market. This study profiles over 150 privately-held injection molders including Becker Group, Key Plastics, LDM Technologies, Mack Molding and Nypro. The report also forecasts demand by resin and presents market shares.

#987. 5/98. \$3,000