

GRACE

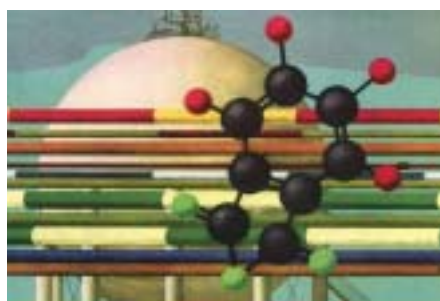
Annual Report 2003



1854



1925



1953



1988

1967

150 Years



2003



150 Years

our annual sales grew 8.8 percent, to \$1.98 billion. Sales from businesses acquired during the year as well as sales of our existing lines contributed to growth.

Dear Shareowners:

In 2004, we celebrate the 150th Anniversary of W. R. Grace & Co. Only a handful of American companies have survived a century and a half in business. In fact, America as we know it was only half-formed in 1854. California had become the 31st state only a few years earlier, and the country was still years away from inventions like the bicycle, telephone and light bulb. Our 16th president, Abraham Lincoln, was a failed, one-term Congressman making his first "comeback" speech at the Illinois State Fair.

Some companies have lasted for 150 years by doing just one thing – denim pants at Levi Strauss & Co., or sewing machines at Singer Sewing Co. Grace has pursued a different path – one of evolution and re-invention. The company started as a supplier of guano in Peru, rose to fame in the 19th Century as a shipping company and, in the second half of the 20th Century, became a diversified global conglomerate. The company continued to evolve in the nineties to the specialty materials and chemical company that we are today. Change is the one thing that Grace has consistently done well.

It is with this spirit that I report significant progress against the goals I set out when I joined the company in late 1998. I envisioned then that Grace could be a \$2 billion a year company with a steadfast adherence to two things – increasing productivity and growing sales through both internal growth in our existing product lines and strategic "bolt-on" acquisitions. At the end of 1999, we had sales of about \$1.55 billion. At the close of 2003, we had \$1.98 billion in sales – a whisker short of that \$2 billion goal and a 28 percent increase in sales in four years.

For the last few years, our growth has been slowed by a difficult economy. In the second half of 2003, and particularly the fourth quarter, the economy began to show some signs of recovery. U.S. sales picked up and, as a result,

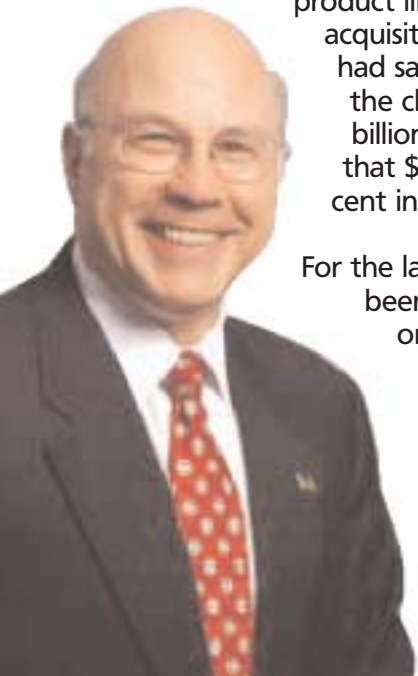
Profitability, however, failed to keep pace with our revenue growth as higher costs for pensions, raw materials and energy could not be passed on to our customers. We have been successful in our productivity initiatives, generating over \$31 million in 2003 and over \$100 million since 1999 of cost savings from Six Sigma alone. Our pre-tax income from core operations was \$148.7 million in 2003, about 18 percent lower than the previous year, and pre-tax profit margin on core operations fell from about 9.9% in 2002 to 7.5% this year.

Reserving for our estimated Chapter 11 liabilities and meeting other Chapter 11-related expenses also affected us negatively. As a result, we posted a net loss of \$55.2 million or 84 cents a share in 2003. It's disappointing, of course, but it serves as a necessary reminder that satisfying these liabilities through a successful reorganization is needed for our long-term success.

While we are expecting the economy to perform about the same as it did in 2003, we are also anticipating some costs – particularly natural gas – to continue to remain at their currently elevated levels. Reaching our goals of 8 percent to 10 percent earnings growth from operations will depend in large part on our ability to continue to drive productivity and control our costs. Late in 2003, we welcomed Fred Festa as our new President and Chief Operating Officer. Chief among his many responsibilities is to integrate our operations, improve our supply chain management and accelerate Six Sigma contributions.

Just as the economy improved in the last six months of the year, so did our safety record. For the last six months of 2003, our safety performance moved toward world class, and we are focused on making more progress toward that goal in 2004.

This year's annual report highlights some of our company's unique history. Through all of its many changes, it was never the portfolio of businesses that gave Grace its longevity. Instead, it was and certainly is today at Grace, the people that make the company and are its most important asset. Our people provide



1921



Dewey and Almy developed the first can sealants to replace lead solder.

DAREX® SEALANTS AND COATINGS

2003 Highlights

- Revenue growth of 7%.
- Sales of Daraform® sealants for metal and plastic closures increased, with growing commercialization of oxygen scavenging sealants.
- Sales of specialty coatings for metal packaging grew significantly.

Market Segments

- Can sealants for food, beverage and aerosol cans and rigid industrial containers.
- Closure sealants to protect the contents of glass and plastic bottles and jars.
- Coatings to protect metal container surfaces and contents and to ensure proper adhesion of sealing compounds.
- Performance latices for barrier coatings and adhesives.

Growth Opportunities

- Geographic expansion opportunities for high performance sealants and coatings.
- Increasing use of plastic packaging and PVC-free sealants.
- Sales and licensing opportunities for oxygen control technologies in plastic packaging applications.

2003

Darex is known as the world's leading supplier of sealants and coatings for cans and closures to the packaged food and beverage industry.



SELF-ADHERED FLASHING 9'
FOR WINDOWS, DOORS AND DETAIL AREAS

Flash it right.

Moisture control is the first step to mold control.

- Sticks Better
- Seals Better
- Easier to Install with RIPCORD™ Split Release Paper

GRACE VYCOR PLUS 1 ROLL : 9" x 33'

Self-Adhered Flashing for Windows, Doors, and Critical Detail Areas

From the Makers of GRACE Ice & Water Shield®



Grace Vycor® Plus is the first product offering from Specialty Building Materials specifically designed for "big box" retail outlets.

2003

SPECIALTY BUILDING MATERIALS

2003 Highlights

- Significant growth of Grace Vycor® Tapes for prevention of water infiltration around windows and doors in the commercial and residential building segments.
- Continued growth of Preprufe® Pre-Applied Waterproofing System in the commercial building segment.
- Strong regional sales performance in Europe and Asia.
- Expansion into the "Big Box" retail channel for residential products Grace Ice & Water Shield® and Grace Vycor Tapes.

- Roofing underlayments to extend the life of a roof by protecting against leaks caused by ice dams and wind driven rain.
- Flashing tapes and air and vapor barriers designed to protect the building envelope from water infiltration in residential and commercial structures.
- Fireproofing and firestopping products for commercial structures to protect steel from the effects of fire, prevent structural damage and retard the spread of fire within the structure.

Market Segments

- Structural waterproofing systems that are innovative and time-tested to protect commercial and residential structures from the damaging effects of water below grade.

Growth Opportunities

- Increased penetration of flashing tapes and development of air and vapor barrier applications.
- Increased penetration of roofing underlayments segment and expanded retail channel presence.
- Regional development in eastern Europe and China.

2003 Performance Chemicals

2003 Net Sales: \$ 940.6 million

Headquarters: Cambridge, Massachusetts

Employees: 3,018

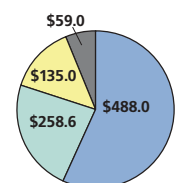
Performance Chemicals

Specialty chemicals and materials that strengthen and protect buildings and infrastructure, as well as sealants, closures and coatings for food and beverage packaging.

Fundamental Strengths

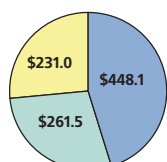
- Broad global positions and brand equity
- Strong customer relationships
- Outstanding customer service and technical support
- High performance product development and commercialization process
- World class research and development facilities

SALES BY REGION
IN MILLIONS

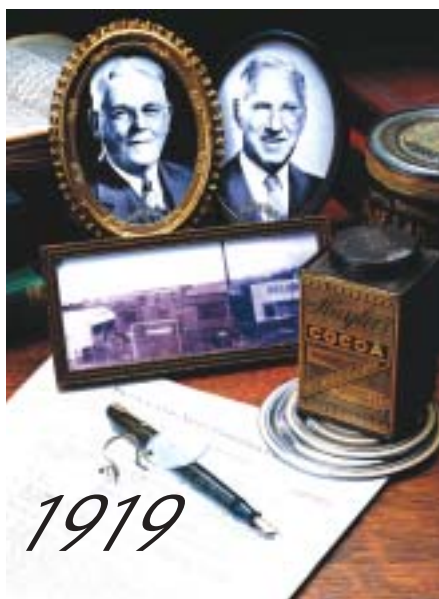


North America 51.9%
Europe 27.5%
Asia/Pacific 14.3%
Latin America 6.3%

SALES BY PRODUCT GROUP
IN MILLIONS



Construction Chemicals 47.6%
Darex® Sealants / Coatings 27.8%
Building Materials 24.6%



Bradley Dewey and Charles Almy, founders of Dewey and Almy Chemical Company in Cambridge, Massachusetts.



Grace's "Changing the Color of Concrete" program focuses on educating the industry about the advantages of adding integral color to concrete.

SPECIALTY CONSTRUCTION CHEMICALS

2003 Highlights

- Strong increase in sales of strategic growth products.
- Installations of VERIFI™ Fluid Delivery System for Grace microfibers doubled.
- Sales of STRUX® synthetic structural fiber reinforcement grew with continued penetration in precast and expansion into new concrete flooring segment.
- Expanded market penetration of products for architectural concrete into Asia.
- Launched new "Changing the Color of Concrete" dispensable liquid pigment products and programs through marketing alliance with industry leader, Rockwood Pigments.
- Sales of concrete admixtures in strategic growth geographies, China, Eastern Europe and Latin America increased.
- Geographic expansion and increased penetration grew sales of cement additives.
- Acquisition in Germany completed geographic coverage of all of Western Europe and established a position in the largest geographic segment in Europe.

Market Segments

- Concrete admixtures to improve concrete placement efficiency and life cycle performance and durability of commercial, institutional and residential structures.
- Cement additives to reduce production cost and improve product performance for cement manufacturers.
- Masonry admixtures to enhance manufacturing efficiency for block producers and improve in-place performance of architectural block construction.
- Architectural concrete additives and treatments to enhance the appearance of concrete and increase in-place value of concrete construction.

Growth Opportunities

- Expanding worldwide use of cement and ready mix concrete, particularly in emerging economies, provides a fundamental foundation for ongoing growth via geographic expansion.
- Drive penetration of water reducing, durability and appearance enhancing concrete admixtures, cement quality improvers and specialty masonry admixtures.

the drive and the energy we need to continuously improve. The last four years have presented more than a few challenges, from the Chapter 11 proceedings to the stagnant U.S. economy and infrastructure cost increases, yet our people have kept their heads up and done great work. We could not have accomplished the things we did this year without the "can-do" spirit that lives in every office, laboratory, production and distribution facility.

The importance of people doesn't end at the company's doors. Our customers and the communities where we live and operate are just as important to our mission. Because of Grace, buildings are safer and stronger; fuel is cleaner; food is fresher and better tasting; and new lifesaving medicines are being discovered each day. Our products improve a myriad of everyday items, from the tallest buildings to the smallest toys.

Grace has lasted for 150 years because of an inherent willingness to change, because of the strength of our people and because we pursue businesses that make a difference in the lives of our customers and the community at large. Through it all, the company remains agile and focused on growing in smart and strategic ways. If we continue to do all of these things well – no easy task, I assure you – Grace can look forward to another productive 150 years.



Paul J. Norris
Chairman and
Chief Executive Officer



FINANCIAL HIGHLIGHTS

(Amounts in millions except per share data)

	2003	2002	2001
NET SALES	\$ 1,980.5	\$ 1,819.7	\$ 1,722.9
PRE-TAX INCOME FROM CORE OPERATIONS BEFORE INTEREST, TAXES, DEPRECIATION AND AMORTIZATION^(a)	\$ 251.6	\$ 275.7	\$ 276.7
As a Percentage of Sales	12.7%	15.2%	16.1%
PRE-TAX INCOME FROM CORE OPERATIONS^(a)	\$ 148.7	\$ 180.8	\$ 187.5
As a Percent of Sales	7.5%	9.9%	10.9%
NET INCOME (LOSS)	\$ (55.2)	\$ 22.1	\$ 78.6
DILUTED EPS	\$ (0.84)	\$ 0.34	\$ 1.20
Weighted Average Diluted Shares Outstanding	65.5	65.5	65.4
NET CASH FLOW FROM OPERATING ACTIVITIES	\$ 110.8	\$ 195.5	\$ 14.6
TOTAL ASSETS	\$ 2,874.2	\$ 2,691.7	\$ 2,521.1
TOTAL LIABILITIES	\$ 3,057.8	\$ 2,913.9	\$ 2,662.8
LIABILITIES SUBJECT TO COMPROMISE	\$ 2,465.3	\$ 2,334.7	\$ 2,311.5
(A Subset of Total Liabilities)			
TOTAL SHAREHOLDERS' EQUITY (Deficit)	\$ (183.6)	\$ (222.2)	\$ (141.7)

Note (a): Neither pre-tax income from core operations nor pre-tax income from core operations before depreciation and amortization purport to represent income or cash flow as defined under generally accepted accounting principles, and should not be considered an alternative to such measures as an indicator of the Company's performance. These measures are provided to distinguish operating results of Grace's current business base from results and related assets and liabilities of past businesses, discontinued products and corporate legacies.

Front Cover Photos (top to bottom): Grace Line steamships sail into New York Harbor in 1954; Conducting research at the Research Center in Columbia during the 1960's; The sailing ship *W. R. Grace*, mid-1800's; Cover art from a 1950's Grace advertisement in chemical publications; A Grace-owned oil refinery (now Atofina) in the 1960's; Grace founder, William Russell Grace; Early manufacture of Ice and Water Shield® in the 1960's.

Davison Chemicals

2003 Sales: \$1,039.9 million

IMPACT-R™ fluid cracking catalysts are introduced for processing heavy, resid feedstocks.



Headquarters: Columbia, Maryland

Employees: 3,100

Catalysts: Catalysts that improve the yield and performance of petroleum, petrochemical and chemical products.

Silica Products: Silica and molecular sieve-based materials and chromatography products that deliver enhanced performance in biotechnology, pharmaceutical, digital media, coatings, industrial, and consumer products and processes.

Fundamental Strengths

- Silica/alumina material expertise
- Strong global presence
- Applications technology
- Manufacturing flexibility

CATALYST PRODUCTS

2003 Highlights

- Commercialized IMPACT-R™, a breakthrough new FCC catalyst technology, designed for resid processing applications.
- Completed and started up a multi-million dollar expansion of the FCC catalyst manufacturing facilities in Lake Charles, LA designed to produce IMPACT™ and other premium alumina-sol technologies.
- Increased sales of gasoline sulfur reduction technologies for the production of clean fuels.
- Introduced Super DESOX™, an industry-leading technology that reduces acid rain by helping refiners minimize their emissions of sulfur oxides (SOx).
- Grew worldwide Advanced Refining Technologies (a joint venture of Grace and Chevron Products Company) hydroprocessing catalysts sales by offering innovative products and penetrating new markets.
- Commercialized new polyethylene catalysts that enable producers to achieve higher catalyst productivity levels while retaining fundamental polymer properties.

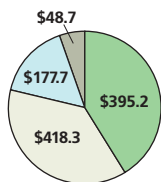
Market Segments

- Fluid cracking catalysts and additives used by oil refineries to produce gasoline and other petroleum-based products.
- Hydroprocessing catalysts used to upgrade refining feedstocks and fuels.
- Chemical catalysts used to produce polyethylene and polypropylene resins for plastics, as well as catalysts for other specialty chemical applications.
- Automotive catalysts which help industries meet and exceed environmental regulations.

Growth Opportunities

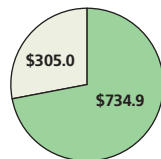
- Leverage forecast strong growth for propylene in the period 2004-2007 to support continued demand for ZSM-5 products, particularly OlefinsUltra.
- Commercialize innovative technologies, such as the S-Brane™ membrane process and Saturn™ and SuRCA™ fluid cracking catalysts, to enable refiners to meet increasingly strict clean fuels mandates.
- Extend the market potential of the polyolefin catalyst product line through the supply of Ziegler-Natta polypropylene catalysts to the polymer industry. These catalysts, based on proprietary technology from Borealis, will serve as a platform for future growth.
- Accelerate global acceptance of recently developed advanced washcoat materials for automotive emissions catalyst applications

SALES BY REGION
IN MILLIONS



- North America 38.0%
- Europe 40.2%
- Asia/Pacific 17.1%
- Latin America 4.7%

SALES BY PRODUCT GROUP
IN MILLIONS



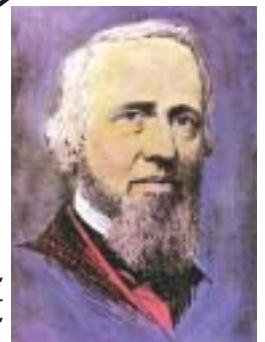
- Catalysts 70.7%
- Silica Products 29.3%

1946



The world's first manufacturing plant for fluid cracking catalysts opened at the Curtis Bay Works in Baltimore, Maryland.

1832



William T. Davison, founder of Davison, Kettlewell & Co., "grinders and acidulators of old bones and oyster shells."

2003

GRACE VYDAC

Enhancing the Science of Separations



Grace's material science enhances chromatographic performance for our biotech and pharmaceutical customers.

SILICA PRODUCTS

2003 Highlights

- Continued investment in high growth segments for separations products. Two additional acquisitions (MODcol Corporation and the HPLC product line of Jones Chromatography) and new product introductions expand the portfolio of products for the process and preparative segments of drug discovery and production.
- Digital Media Solutions sales increased, primarily due to growth of patented SYLOJET® DAZL™ submicron silica for the emerging segment of ink jet printed glossy, photographic images.
- Growth in Europe was driven by expansion into Eastern Europe with adsorbents products, especially for insulating glass windows, and by precipitated silica products.

Market Segments

- Industrial: Silica gel, colloidal and precipitated silicas and molecular sieves for coatings, plastics, chemical processes, precision investment casting, refractory, insulating windows, desiccants, and gas and liquids purification.
- Consumer: Silica gels for the processing of edible oils and beverages, and for formulating toothpaste and personal care products.
- Biotech & Pharmaceutical: Process media and analytical columns for chromatography and formulating silicas for pharmaceutical applications.
- Digital Media: Specialty silicas and formulations for ink jet papers, photo, and commercial wide-format printing.

Growth Opportunities

- Develop new products for Biotechnology and Pharmaceutical applications with continued enhancement to materials science and chemistry modifications.
- Expand Digital Media Solutions business with a variety of silica-based materials and formulations for the growing use of digital media, including ink jet printers, digital cameras, instant processing, and specialty applications.
- Leverage materials science in Coatings segment to develop higher efficiency matting agents for traditional applications; create innovative products for the growing ultraviolet-cured and powder coatings segment; and enhance product offering for anticorrosive coatings systems.

1945



An early ad for silica used as a packaging desiccant.



Fred Festa (left) and Paul Norris.

GRACE LEADERSHIP TEAM

Robert J. Bettacchi
Senior Vice President and
President, Performance Chemicals

William M. Corcoran
Vice President, Public and
Regulatory Affairs

Susan E. Farnsworth
Vice President, Finance-Operations

Fred E. Festa
President and Chief Operating Officer

W. Brian McGowan
Senior Vice President, Administration

Paul J. Norris
Chairman and Chief Executive Officer

Michael N. Piergrossi
Vice President, Human Resources

Gregory E. Poling
Davison Chemicals
Vice President and General Manager,
Silica Products

Joseph A. Rightmyer
Davison Chemicals
Executive Vice President and
General Manager, Catalysts

Mark A. Shelnitz
Secretary

David B. Siegel
Senior Vice President,
General Counsel and
Chief Restructuring Officer

Robert M. Tarola
Senior Vice President and
Chief Financial Officer



BOARD OF DIRECTORS

John F. Akers¹
Chairman and Chief Executive Officer,
International Business Machines
Corporation

H. Furlong Baldwin¹
Chairman of the Board,
President and CEO of the
Mercantile Bankshares Corporation

Ronald C. Cambre¹
Chairman of the Board and CEO,
Newmont Mining Corporation

Marye Anne Fox¹
Chancellor, North Carolina State University

John J. Murphy¹
Chairman of the Board,
Dresser Industries Inc.

Paul J. Norris
Chairman and Chief Executive Officer,
W. R. Grace & Co.

Thomas A. Vanderslice¹
Chairman and Chief Executive Officer,
M/A-COM

¹Also serves on Audit, Nominating and
Governance, Compensation, and
Corporate Responsibility committees.

INFORMATION FOR INVESTORS

Corporate Headquarters
W. R. Grace & Co.
7500 Grace Drive
Columbia, MD 21044

Transfer Agent
Inquiries and changes to shareholder
accounts should be directed to our
transfer agent:
Mellon Investor Services LLC
P. O. Box 3315
South Hackensack, NJ 07606-1915
(800) 648-8392
www.melloninvestor.com

Shareholder Services
Inquiries from individual shareholders
should be directed to our shareholder
services department:
W. R. Grace & Co., Shareholder Services
7500 Grace Drive
Columbia, MD 21044
(410) 531-4167

Publications
To obtain additional information about
Grace, request copies of its quarterly
reports on Forms 10-Q or current reports
on Forms 8-K, write to:
Investor Relations, W. R. Grace & Co.,
7500 Grace Drive, Columbia, MD 21044 or
via E-mail at: investor.relations@grace.com
or call (410) 531-4167.

Trademarks
Product names used in the text of this
report are trademarks, servicemarks or
trade names of operating units of W. R.
Grace & Co. or its subsidiaries.

KEY MANUFACTURING SITES

Davison Chemicals
Aiken, South Carolina; Chattanooga, Tennessee; Chicago, Illinois; Cincinnati, Ohio; Curtis Bay,
Maryland; Dueren, Germany; East Chicago, Indiana; Hesperia, California; Kuantan, Malaysia; Lake
Charles, Louisiana; Littleton, Colorado; Sorocaba, Brazil; Stenungsund, Sweden; Valleyfield,
Canada; Worms, Germany.

Grace Performance Chemicals
Ajax, Canada; Atsugi, Japan; Augusta, Georgia; Bangkok, Thailand; Barcelona, Spain; Belleville,
South Africa; Cambridge, Massachusetts; Chicago, Illinois; Chung Li, Taiwan; Dubai, UAE;
Epernon, France; Essen, Germany; Gebze, Turkey; Guangzhou, China; Hamburg, Germany;
Hatfield, Pennsylvania; Hong Kong, China; Houston, Texas; Inchon, Korea; Irondale, Alabama;
Jakarta, Indonesia; Kalinin, Russia; Kuala Lumpur, Malaysia; LaSalle, Canada; Larnaud, France;
Lithonia, Georgia; Los Angeles, California; Luegde, Germany; Manila, Philippines; Melbourne,
Australia; Milwaukee, Wisconsin; North Bergen, New Jersey; Owensboro, Kentucky; Passirana,
Italy; Saillenard, France; Santa Ana, California; Santiago, Mexico; Shanghai, China; Singapore;
Slough, United Kingdom; Sorocaba, Brazil; St. Neots, United Kingdom; Sydney, Australia;
Widnes, United Kingdom; Valencia, Venezuela.