



# Focused on Leadership

W. R. Grace & Co. Annual Report 2012

**GRACE**

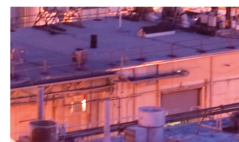
Enriching Lives, *Everywhere.*<sup>®</sup>



## Focused on Leadership

Grace is a leading global supplier of catalysts, engineered and packaging materials, specialty construction chemicals and building materials. For more than 70 percent of our 2012 sales, Grace ranks #1 or #2 in those applications.

From our management team to our products, from stewardship to our financial performance, Grace remains **focused on leadership**.



### Customers Around the World

Grace customers span the globe, delivering thousands of products and services that are made better through a partnership with Grace. In 155 countries, Grace customers include large and small enterprises, each delivering value across hundreds of industry categories including consumer products, refining, construction, and manufacturing.



### Solutions and Products

From operations in more than 40 countries, Grace innovation and collaboration remain at the center of our customer partnerships—unique relationships that create unique solutions. From research to manufacturing and across the supply chain, Grace's products, technologies, applications, and processes help our customers compete successfully in their many markets.



### Talented, Dedicated People

Grace's workforce of more than 6,500 people is truly global. Over half speak more than one language while approximately 15 percent speak three or more. Most live outside of the U.S. More than a quarter have earned at least one post-graduate degree. Around the world, the people of Grace share our Values, a commitment to our customers and communities, and a passion for safety.

# Financial Highlights

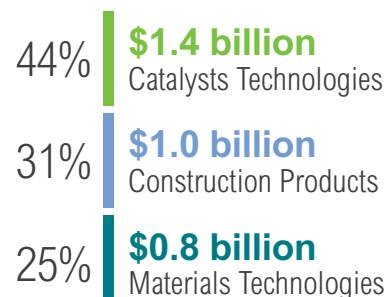
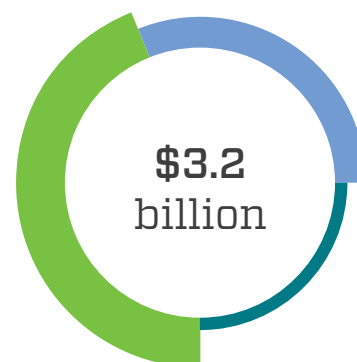
Amounts in millions, except per share data

	<u>2012</u>	<u>2011</u>	<u>2010</u>
Net Sales	<b>\$3,155.5</b>	\$3,211.9	\$2,675.0
Net Income	<b>\$94.1*</b>	\$268.8	\$207.4
Cash and Cash Equivalents	<b>\$1,336.9</b>	\$1,048.3	\$1,015.7
Net Cash Provided by Operating Activities	<b>\$453.6</b>	\$217.0	\$327.7

## Adjusted EPS

<b>Diluted EPS (GAAP)</b>	<b>\$1.23</b>	<b>\$3.57</b>	<b>\$2.78</b>
Restructuring expenses and related asset impairments	<b>\$0.06</b>	\$0.07	\$0.11
Chapter 11 and asbestos-related costs/contingencies	<b>\$3.39</b>	\$0.41	\$0.30
Loss on sales of product line and divestment expenses	—	\$0.01	—
Discrete tax adjustments	<b>(\$0.51)</b>	(\$0.12)	(\$0.56)
<b>Adjusted EPS (Non-GAAP)</b>	<b>\$4.17</b>	<b>\$3.94</b>	<b>\$2.63</b>

## 2012 Sales by Business Segment



## 2012 Sales by Region



\* Reflects the impact of a \$365.0 million non-cash charge recorded to adjust the company's asbestos-related liability in 2012.

Please refer to our Annual Report on Form 10-K filed with the United States Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov) for additional information on our business, proposed plan of reorganization and other legal proceedings, our financial condition, results of operations, and reconciliations of Non-GAAP financial measures.



# Focused on Leadership

## Shareholders, Customers, Colleagues, and Partners:

In 2012, sluggish U.S. growth, European recession, and currency fluctuations were crowded out of the headlines by the Euro crises, Hurricane Sandy, and the American fiscal cliff. Across our business, we faced adverse conditions, uncertainty, and opportunity. I am proud to commend my colleagues for responding effectively to all three. Their focus and performance were keys to maintaining and expanding Grace's leadership in so many of the markets we serve.

Based on the efforts of more than 6,500 of my colleagues around the world, all of the company's three, newly unified and focused segments—Grace Catalysts

Technologies, Grace Materials Technologies, and Grace Construction Products—experienced strong growth and increases in operating earnings.

I believe this was because we stayed focused, pinpointing capital investment of \$140 million in technology, capacity, and expansion of the Grace product portfolio. We focused on investment and growth in emerging markets; on investment in new technologies and products; and on disciplined cost reduction and productivity as we united our three core segments into an integrated operating company.

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### Penetrating emerging markets

In fast-growing emerging markets, we generated solid organic growth and made significant acquisitions, expanding and diversifying our geographic footprint as well as our products. Emerging regions accounted for 37 percent of sales and grew 15 percent compared with 2011.

We acquired the assets of Noblestar Catalysts Co., Ltd, located in Qingdao, China, a manufacturer of fluid catalytic cracking (FCC) catalysts, catalyst intermediates, and related products. We worked towards forming a joint venture with Al Dahra Agricultural Company to build and operate the first Middle East FCC catalysts and additives plant in Abu Dhabi.

Among other initiatives in our global construction business, we broke ground on our state-of-the-art production facility for waterproofing products in the central Chinese city of Ezhou in the Hubei Province. This effectively will double our production capacity for specialty waterproofing products in the region and beyond.

### New products and technologies

In 2012, Advanced Refining Technologies LLC (ART), our joint venture with Chevron Products Company, and Kuwait Catalyst Company (KCC) integrated the KCC site in Shuaiba, Kuwait into ART's global manufacturing network to provide enhanced hydroprocessing catalysts products and services to petroleum refiners in the Arabian Gulf region and around the world.

We also entered into an agreement with The Dow Chemical Company to develop new catalysts for polypropylene production.

In Materials Technologies, new products such as SYLOID® MX silica, designed to increase matting efficiency and lower volatile organic compounds in paint products, strengthened our leadership position in the global coatings industry. We were granted four U.S. patents relating to the REVELERIS® X2 Flash Chromatography System, a system with unique and powerful technology that allows researchers in the pharmaceutical industry to accelerate purification and product development.

In Construction Products we invested in both technology and emerging region capacity with the acquisition of Rheoset Industria e Comercio de Aditivos Ltda., a leading manufacturer of concrete admixtures in Brazil.

### Margin improvement through cost control, integration

Strong increases in operating earnings and margin improvement reflected disciplined expense control. Our newly unified structure accelerated operational and supply chain integration. We continued to make solid progress toward common management systems and fully integrated business processes. Significant initiatives in Supply Chain and Sales & Operations Planning contributed important productivity gains, strengthening margins.

### Progress toward emergence from Chapter 11

In 2012, we made important progress in our Chapter 11 reorganization. In June, the U.S. District Court denied all appeals to the Joint Plan of Reorganization. In January 2013, we filed briefs to address five appeals that remain pending with the Third Circuit Court of Appeals. We anticipate oral arguments in the second quarter of 2013, with rulings to follow.

### Strategically positioned for the future

Our actions and investments in 2012—of which I've only shared a handful of examples here—enabled Grace not only to address the challenges of the global economy, but also to improve our position for the future. Last year's extraordinary volatility pressure-tested our business model, our management systems, and our leadership team. Under the seasoned leadership of 35-year Grace veteran, Greg Poling, President and Chief Operating Officer, I am proud of their creativity, insight, discipline, and commitment to safety that enabled us to remain on track toward our long-term financial targets. As we watch for improvement in the global economy, I hope you share my enthusiasm for the opportunities that lie ahead!

Sincerely,

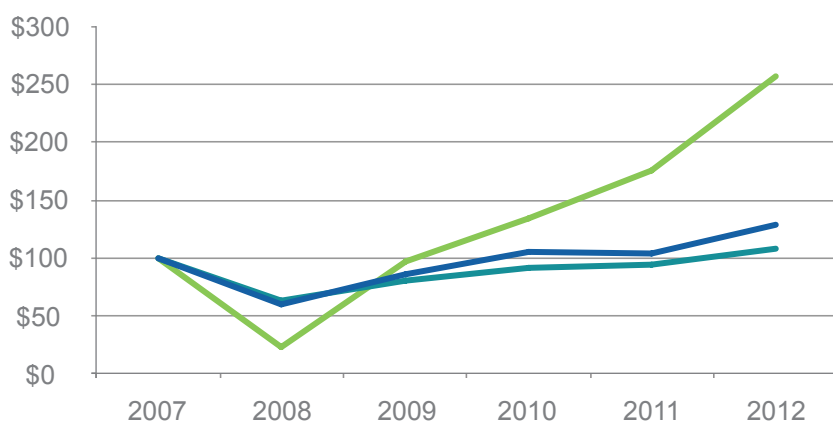


Fred Festa

Chairman and Chief Executive Officer

## Performance Comparison

Grace vs. S&P 500 and S&P 500 Chemical Industry



— W. R. Grace & Co.  
— S&P 500 Index  
— S&P 500 Chemical Industry

Comparison of Grace's total shareholder return for the six years ended December 31, 2012, to the combined total shareholder returns of the Standard & Poor's 500 Index and the Standard & Poor's 500 Chemical Industry. This assumes the investment of \$100 on December 31, 2007, and the immediate reinvestment of dividends for dividend-paying stocks.

## 2012: Unified Into Three Focused Segments

In February 2012, Grace announced a restructuring of operations into three highly-focused segments—**Grace Catalysts Technologies**, **Grace Materials Technologies**, and **Grace Construction Products**—more closely aligned with the customers we serve in large global markets. The change also allows us to realize operational efficiencies and reduce overhead.



Under the unified leadership of President and Chief Operating Officer Gregory E. Poling, a seasoned executive was named to lead each segment: Shawn A. Abrams now directs Grace Catalysts Technologies. Joanne Green leads Grace Materials Technologies. Grace Construction Products is led by Andrew Bonham.

All three segments share core competencies of innovation through materials science and formulations expertise; differentiated products tailored to customer goals; and typically long-term, well established customer relationships.

### Four core strategies

Grace pursued its four core strategies in 2012: invest in R&D to introduce new, high-performance, technically differentiated products and services; expand sales and manufacturing in emerging regions including China,

India, other markets in Asia, Eastern Europe, the Middle East, and Latin America; pursue selected acquisitions and alliances that complement our product offerings or provide opportunities for faster penetration of markets; and achieve process and productivity improvements, enhanced cost management, integration of functional support, and improved supply chain management.

With respect to the integration of our global operations, we expanded the role of our Manila, Philippines, Operations Center to include financial planning and analysis, reporting, and accounting. This contributed to cost savings and resulted in company-wide streamlined processes.

Under our focused global program to address indirect spending, we consolidated purchasing activities, implemented web-based procurement tools, and improved contract management protocols.





## Catalysts Technologies

Grace Catalysts Technologies develops and manufactures catalysts and related products/technologies used in refining, as well as petrochemical and other chemical manufacturing applications. Grace's Advanced Refining Technologies (ART) joint venture with Chevron Products Company is managed in this segment.

### Refining Technologies: bringing innovation closer to our customers

Grace's very broad product technology portfolio enables us to design custom catalyst solutions for our customers in a wide variety of operating environments. In 2012, the business saw a growing global demand for diesel yields. Both Grace and ART introduced multiple catalyst solutions to maximize refinery yield, improve run length, and remove contaminants such as sulfur, thereby improving petroleum refinery economics.

One of the dynamics driving our investments is the shift in petroleum refining and petrochemical capacity into the Middle East and Asia.

Global energy consumption growth continues, driven by industrialization in the developing regions of China, India, and elsewhere in Asia. Grace is establishing manufacturing in these regions and the Middle East that are positioned closer to fossil fuel and natural gas resources while aligning FCC capacity with demand growth.

In 2012, Grace worked towards forming a joint venture with Al Dahra Agricultural Company to build and operate the first FCC catalysts plant in the Middle East. The production plant, to be located in Abu Dhabi,

is expected to begin supplying oil refiners in the high growth Middle East and South Asia regions in 2015.

Grace continued its long history of business in China where, in 1986 it established the first wholly foreign-owned company in the People's Republic of China. In 2012, Grace acquired FCC manufacturing assets in China from Noblestar Catalysts Co., Ltd., to serve petroleum refiners within China and North Asia.

### Biofuels and Renewable Chemicals: exploring opportunities in bio-based feedstocks

As refiners continue to explore ways to produce energy from fossil fuel and natural gas alternatives, Grace is using catalyst technologies to develop innovative refining methods for renewable feedstocks including biofuels.

Throughout 2012, Grace continued development, under a U.S. Department of Energy award, of advanced catalyst technologies for the upgrading of pyrolysis oils that reduce hydrogen consumption and the related capital costs of using bio-oils in fluid catalytic cracking.

In addition, Grace signed a multi-year agreement with Braskem, the leading thermoplastics resin producer in the Americas, to develop process technologies and catalyst solutions to produce greener chemicals. The partnership is advancing the commercialization of a process to convert renewable feedstocks into value-added products.

### Specialty Catalysts: expanding polyolefin capabilities

In 2012, Grace announced that we had entered into an agreement with The Dow Chemical Company to develop and commercialize new polypropylene catalysts for the production of stronger, clearer plastic resins with improved processing characteristics. These new proprietary catalysts were launched in 2012 under the HYAMPP™ catalyst trade name. These non-phthalate catalysts comply with the 2007 European Community regulation on chemicals and their safe use (REACH). Consumer applications include automotive, medical and food packaging.

We also expanded Grace catalysts manufacturing, R&D and scale-up capabilities at our Albany, Oregon site to support our rapidly growing polypropylene and single-site catalyst markets. These businesses experienced double-digit growth in 2012.

We invested in our Curtis Bay (Baltimore, Maryland) site, dramatically reducing waste generation through the recovery and recycling of solvents used in the manufacture of polyethylene catalysts. This lowered manufacturing costs while reducing environmental impact.

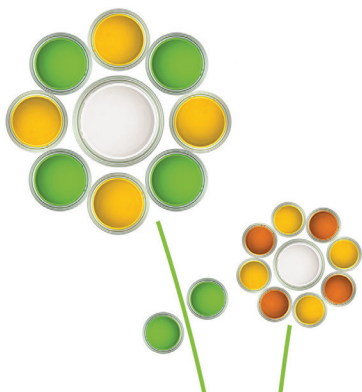


## Materials Technologies

The Grace Materials Technologies segment is extensive and diverse, yet anchored in our deep understanding and broad capabilities in silica-based technologies. Materials Technologies solutions are integrated into our customers' manufacturing processes to help them strengthen their performance and differentiation. Product groups include Engineered Materials, which produces highly specialized engineered materials for coatings, plastics, process adsorbents, and consumer applications; Darex®, a leading supplier of coatings, can and closure sealants to the metal packaging industry; and Discovery Sciences, innovators in chromatography, custom silica-based products and specialty fine chemicals for the pharmaceutical industry. Grace manufactures materials that improve our customers' products to meet evermore rigorous performance objectives and environmental regulations.

### Engineered Materials: continuing silica innovation

Building on our extensive experience with silica technology, Grace developed a new generation of SHIELDDEX® ion-exchanged, non-toxic, anti-corrosive silica pigments that can replace chromates in coil and general industrial primers. SHIELDDEX® CS311 is among the latest advances in Grace's 20-year record of delivering optimum anti-corrosion performance and meeting increasing demand for environmentally friendly pigments.



Grace also introduced a family of new SYLOBEAD® adsorbent products for natural gas and shale gas drying with increased adsorption efficiency resulting in improved productivity, longer equipment lifetime, and lower energy usage for our customers.

### Darex® Packaging: expanding with the global middle class

Grace's Darex® packaging products are used in seven of every 10 food and beverage cans sold around the world. The rapid growth of the middle class in many emerging economies signals increasing use of consumer products—including packaging. Our packaging products address major industry trends such as lighter weight packaging, recyclability, lower energy consumption, personal convenience, and highly individualized designs.

The Darex® packaging components product line is strongly positioned with state-of-the-art products, technical service, and regional production. In 2012, Grace introduced new can sealant formulations to improve performance, a new line of BPA-NI coatings, and non-PVC closure sealants in response to regulatory changes and consumer preferences.

### Discovery Sciences: delivering precision and speed to the pharmaceutical industry

Grace has long held a position in the pharmaceutical industry, customizing silica gel for high value chromatography and drug formulation uses. Over time, we have expanded our Discovery Sciences business with several acquisitions that added technology, products, and infrastructure to leverage our silica material expertise in research, manufacturing, and drug delivery.

Grace's Darex® packaging products are used in seven of every 10 food and beverage cans sold around the world.



In 2012, Grace launched a second generation REVELERIS® X2 Flash Chromatography System which streamlines discovery purification and helps researchers identify promising new drug candidates faster. Grace has been awarded four U.S. patents for technology used in the REVELERIS® Flash Chromatography System. We also expanded our biopurification portfolio launching a new silica-based chromatography media designed to improve manufacturing productivity of high-growth peptide-based therapeutics. The new media improves throughput and lowers operating costs, to help speed delivery of new drugs to market.

We also are expanding our specialty fine chemicals manufacturing, and enhancing our capabilities to produce complex, multi-step peptide and chiral intermediates for this fast growing pharmaceutical sector.





## Construction Products

**G**race Construction Products is a world leader in specialty construction chemicals, including additives for the cement and concrete industries, as well as specialty building materials for commercial, infrastructure, and residential construction. In many segments, Grace spans the value chain, providing complementary technologies and services to strengthen, enhance, and protect structures.

### Concrete Admixtures and Services: improvements across the value chain

In 2012, Construction Products invested in an acquisition and technology that expanded our offerings, and introduced innovative process technology for concrete producers.

In July, Grace purchased Brazil-based Rheoset Industria e Comercio de Aditivos Ltda., a leading manufacturer of concrete admixtures, along with their proprietary, value-added technologies. The acquisition adds manufacturing capacity at Rio de Janeiro and Recife, complementing Grace's existing operations at Sorocaba and Bahia. The acquisition will accelerate additional technology and product development.

Grace significantly expanded its investment in our VERIFI® service—an onboard process control system for ready mix concrete producers. This technology measures and controls a wide variety of concrete properties on the truck to maintain optimal concrete consistency, delivering realtime quality and production data.

VERIFI® systems allow concrete producers to immediately adjust product properties en route and on site, maximizing profitability while dramatically improving quality and reducing risk.

### Waterproofing: protecting structures around the globe

Grace continued to invest in state-of-the-art waterproofing solutions for buildings and infrastructure. Last August, Grace broke ground on a new waterproofing production facility at the central Chinese city of Ezhou. This new facility will double our capacity to serve China and the rest of Asia. Grace also added waterproofing manufacturing capacity in Dubai to support the rapidly growing Middle East region.

# Meeting Our Responsibility to Our Global Community

## Stewards of Community Relationships

Grace employees give thousands of hours each year in volunteer service. Their talent and effort are supplemented with financial support, through company matching of employee contributions and through Grace Foundation grants.

In 2012, the Grace Foundation donated nearly \$1 million to charitable organizations, universities, and colleges to combat diseases, preserve landmarks and the environment, create safer neighborhoods, educate young leaders, and support neighbors in need.

Our community stewardship efforts focus on education, but also support health care, human services and youth organizations, as well as civic, environmental, and cultural programs.



Safety and disaster emergency preparedness was a focus in 2012. Employees shared with local organizations and schools skills learned on the job, such as first aid and Environmental, Health, and Safety awareness.

Grace employees supported school-age children in many countries around the world, distributing school supplies; purchasing musical instruments and lessons; beautifying a kindergarten; and mentoring. Grace partnered to introduce minority high school girls to careers in science, technology, engineering, and math.

Efforts on behalf of the disadvantaged in our communities ranged from donations of food, clothing, and household goods to hands-on house construction with Habitat for Humanity®. At the holidays, Grace employees provided meals and distributed toys. Employees organized recycling campaigns and planted gardens at schools and in neighborhoods.

Grace is proud that our employees have embraced community stewardship and have developed personalized initiatives that improve the communities where we live and work.

## The health and safety of our employees and the communities where we operate as well as environmental stewardship are of utmost importance at Grace.

Recognition received by several facilities in 2012 reflect that priority.

### Kuantan, Malaysia:

1,000,000 hours without a recordable incident

### Albany, Ore.:

recognized by the Society of Chemical Manufacturers' Association for resource management and waste minimization

### 51st St., Chicago, Ill.:

earned OSHA's "Star" Voluntary Protection Program for injury rates generally 50% lower than worksites in our industry; no lost time injury in more than five years

### 71st St., Chicago, Ill.:

received an American Chemistry Council (ACC) Certificate of Honor for operating without days away from work or safety-related restricted work

### Columbia, Md.:

global headquarters: won an ACC Non-Manufacturing Improvement Award for reducing electricity and natural gas usage



## Our Values



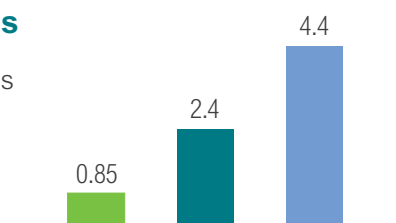
**Teamwork • Performance • Integrity • Speed • Innovation**

## Safety Metrics

	<u>2012</u>	<u>2011</u>	<u>2010</u>
Recordable Rate	<b>0.70</b>	0.91	0.70
Lost Time Rate	<b>0.27</b>	0.24	0.22

### Safety Industry Standards

- Responsible Care® companies
- Chemical companies
- Manufacturing companies



Grace is a Responsible Care® company as designated by the American Chemistry Council. In 2012, Grace received the ACC Responsible Care® Performance Award for safety and product stewardship.

**Lake Charles, La.:** won an ACC Energy Efficiency Program Award for reducing steam and natural gas usage, and an Environmental Impact Award for reducing waste water requiring treatment

**Curtis Bay (Baltimore, Md.) and Deerfield, Ill.:** received ACC Certificates of Achievement for operating without days away from work

**Minhang, China:** site was recognized by the Shanghai Institute of Work Safety for Standardized safety management

## W. R. Grace & Co. Leadership Team

**Fred E. Festa**  
Chairman and Chief Executive Officer

**Gregory E. Poling**  
President and Chief Operating Officer

**Hudson La Force III**  
Senior Vice President and Chief Financial Officer

**Mark A. Shelnitz**  
Vice President, General Counsel and Secretary

**Pamela K. Wagoner**  
Vice President and Chief Human Resources Officer

## Board of Directors

**John F. Akers\***  
Retired Chairman and Chief Executive Officer  
International Business Machines Corporation

**H. Furlong Baldwin\***  
Retired Chairman of the Board,  
President and Chief Executive Officer  
Mercantile Bankshares Corporation

**Ronald C. Cambre\***  
Retired Chairman of the Board and  
Chief Executive Officer  
Newmont Mining Corporation

**Fred E. Festa**  
Chairman and Chief Executive Officer  
W. R. Grace & Co.

**Marye Anne Fox\***  
Retired Chancellor  
University of California San Diego

**Janice K. Henry\***  
Retired Senior Vice President,  
Martin Marietta Materials, Inc.

**Christopher J. Steffen\***  
Retired Vice Chairman  
Citicorp and Citibank N.A.

**Mark E. Tomkins\***  
Retired Senior Vice President and  
Chief Financial Officer, Innovene

**Jeffery N. Quinn\***  
Chairman and Chief Executive Officer  
The Quinn Group LLC and Quinpario Partners LLC

\* Also serves on Audit, Nominating and Governance, Compensation, and Corporate Responsibility Committees



## Investor Information

### Transfer Agent

*Inquiries and changes to shareholder accounts should be directed to our transfer agent:*

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[www.computershare.com](http://www.computershare.com)

### Investor Relations

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**grace.com**

# GRACE

Enriching Lives, *Everywhere.*®

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