

## PPG

*Sustainability has been an underlying principle since its founding in 1883*

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*PG Industries' vision is to continue to be the world's leading coatings and specialty products company. PPG is a major producer of paints, coatings, specialty materials, optical products, chemicals, glass and fiber glass. Founded in 1883, the company serves customers in industrial,*

*transportation, consumer products, and construction markets and aftermarkets. With headquarters in Pittsburgh, PPG operates in more than 60 countries around the globe. Sales in 2009 were \$12.2 billion. PPG shares are traded on the New York Stock Exchange (symbol: PPG). The company employs about 40,000 people worldwide.*

### **Sustainability at PPG**

For more than 125 years, PPG has grown and thrived by making sound business decisions. With the intent of ensuring the company's long-term viability and success, these decisions have also been made with the best interests of people, profitability and the planet in mind. Sustainability has been an underlying principle for all of PPG's actions since its founding in 1883.

At PPG, sustainability is first and foremost about being a successful business. We do what we do in order to ensure the success and lasting presence of our company for the benefit of our customers, our suppliers, our shareholders, our employees and our neighbors. But, we also act in a way that not coincidentally helps to ensure the life and resilience of our economies, our environment and our society.



We believe that these two views of sustainability—sustaining PPG and sustaining the world—are not mutually exclusive, but are very compatible. PPG's innovations are helping to address some of the world's most pressing problems related to energy, the environment, security and other issues.

### **"Green" Products at PPG**

In 2009, 26.4 percent of PPG's sales were from "green" products—products that PPG believes have positive energy or environmental attributes. This is up more than 2 percentage points from 2008 when it was 24 percent. This occurred despite the fact that overall sales decreased more than 22 percent from 2008 to 2009. Also in 2009, PPG introduced 65 new products expected to generate global sales of more than \$3.6 billion in their first 60 months. Of these new products, 38 were expressly formulated to promote environmental sustainability by reducing energy consumption, volatile organic compound (VOC) emissions and water use. These "green" products alone are anticipated to generate just under \$3 billion in sales before 2015.

PPG's history of innovation includes coatings that protect cars from rust, chemicals that strengthen rubber and protect water supplies, paints that resist mildew and contain no volatile organic compounds





(VOCs), optical products that lighten and darken automatically, military applications for transparent armor, and fiber glass for alternative energy applications.

### **Developing Planet-Friendlier Coatings**

PPG has led the way in making environmentally responsible architectural coatings products, drastically reducing volatile organic compounds (VOCs) and odor. In 1999, the company introduced *Pure Performance* paint, the first paint to carry the U.S. Green Seal certification of environmental responsibility. With the 2008 acquisition of SigmaKalon, PPG has further expanded its reputation for low-VOC paints. The company recently launched its *Sherwood* line of low-VOC, water-based wood care products in the South African market, among the first such products available in the region.



### **Transportation**

In 2009, PPG launched an array of products to reduce the energy requirements of the world's boats, cars and airplanes. In the marine shipping industry, the company launched *Sigma Syladvance™* 800 coatings, a self-polishing paint that smoothes the hulls of container vessels as they sail, cutting drag and dramatically reducing fuel consumption, on average saving 3.75 tons of fuel per ship, per day. In the automobile industry, PPG debuted *Agilon™* 400 performance silica for tires and two high-performance waterborne coatings called *Envirobase®* waterborne basecoat and *Selemix®* Aqua coatings that diminish emissions. The tire additive, made from precipitated silica, reduces rolling resistance by 30 percent and improves a vehicle's fuel efficiency by 6 percent. Applied across the U.S. passenger tire market, this increase in fuel efficiency could save up to 8 billion gallons of fuel.

In the aerospace market, PPG introduced two glass products that save energy by cooling airplane interiors and making aircraft lighter and more fuel efficient. They include *Alteos™*, interactive window

systems, the industry's first commercial electrochromic cabin windows, and, new cockpit windshields that reflect infrared energy. This cabin window technology eliminates heavy plastic and metal sunshades, while a proprietary acrylic coating reduces the weight of the airplane windshields. These glass advances joined a new generation of aerospace sealants and coatings systems that also reduce aircraft weight. Two new PPG sealants, one for cockpit windshields and another for fuel tanks and rivets and joints in the fuselage, reduce sealant weight by up to 20 percent. That slashes fuel consumption by more than 100,000 gallons per year in a typical commercial jet. A new system of colorful aerospace coatings further cuts the load of commercial airliners, reducing airplane weight by up to 200 pounds.

### **Renewable Energy Market**

PPG also provides leadership in the renewable energy market, offering a rich portfolio of proven, globally available products that help energy producers to improve production efficiency and preserve their investments. The company invests more than \$300 million annually to develop coatings, fiber glass and glass technologies that fulfill the special needs of this market.

### **Wind Energy**

As one of the world's two largest suppliers of both fiber glass and coatings, PPG is uniquely positioned to serve the wind energy marketplace. The company manufactures fiber glass reinforcements for composites in the United States and China that help to strengthen turbine blades while keeping them lightweight. Globally produced PPG coatings solutions protect blade, tower and metal components on land and sea, and they offer coating process efficiency as well as environmentally-responsible water-based liquid and high-solids formulations. More information about PPG's products for the wind energy industry is available at [PPGWind.com](http://PPGWind.com).

### **Solar Energy**

To support solar energy producers, PPG provides advanced glass technologies that improve the efficiency of reflector and photovoltaic panels as well as metal coatings that protect solar collection equipment. PPG introduced the first low-iron glass in the 1930s and now

uses this technology in *Starphire* and *Solarphire* glasses that offer high visible light transmittance to enable efficient solar

energy production. Also an innovator in thin-film coating technology for glass, PPG offers enhanced-performance coated glasses for the solar power industry. More information about PPG's products that support solar energy generation is available at [PPGSolarphire.com](http://PPGSolarphire.com). 🌱



The solar canopy on the California Academy of Sciences in San Francisco features 700 solar panels made with Starphire glass by PPG, generating 243,000 kilowatt-hours of energy per year and providing 10 percent of the museum's energy needs.